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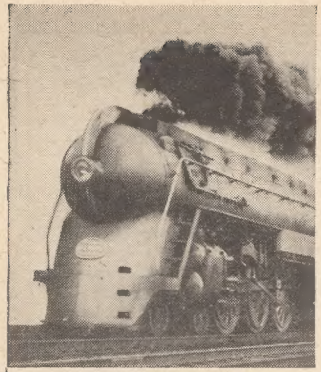

RAILROAD

MAGAZINE

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By Frederick Blakeslee

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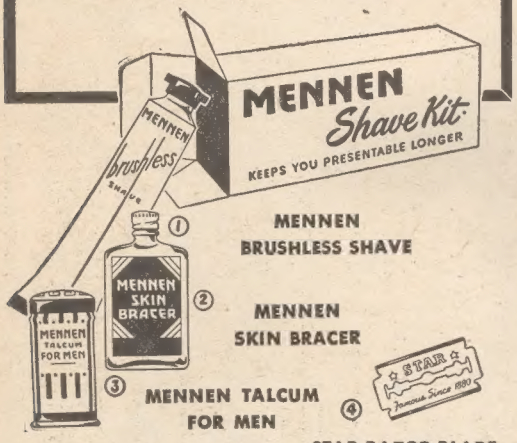

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Believe It Or Not . . .

YEARS AGO, in the days when a railroadman's day or night trick was twelve hours, I was putting in one of those long stretches—six p.m. to six a.m. —on a night when Old Man Winter was doing his very best to give Minnesota a blizzard. The section crews and switchmen in the East Minneapolis yards of the Chicago, St. Paul, Minneapolis & Omaha were doing everything possible to keep one or two switches clean, especially those on the main line. For the grain rush from the Northwest was on.

About midnight we were advised that an extra was on the way in and should arrive about one or two; this was an order to have a track ready for it. The grain train yard ran east and west. We used the Great Northern on the incoming move, and our tracks ran through, joining again with the Great Northern mainline as it headed for St. Paul. When a train arrived, they pulled into the yard; then when all was clear they cut off the engine and the head brakeman piloted her to the west end of the garden and picked up the caboose. Thus she headed backwards to what we called the west side yards where the roundhouse and caboose yards were.

When a train drew into the yard, the conductor would drop off the crummy, come into the yard office and leave his waybills. Then he'd wait until the brakemen had picked up the caboose, and when the same came by, he'd ride it to the west side and thus his day or night work would be through. This was the order followed on the night in question, except for one thing. And "thereby hangs a tale."

This grain train arrived, pulled into the yard and moved on up the track. The conductor dropped off at the yard office, came in and threw his bills over to the chief yard clerk—myself—and made the usual remarks about the weather. They'd had a

(Continued on page 8)

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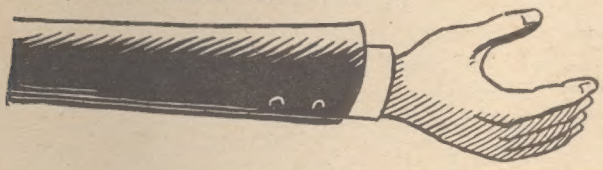

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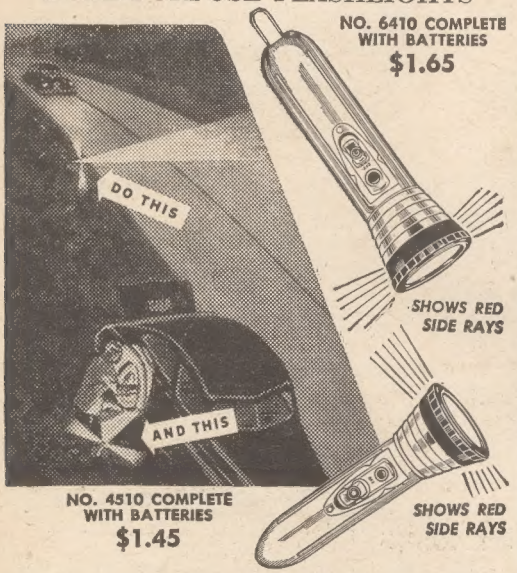

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FLASHLIGHTS AND BATTERIES

tough time making a certain hill; the old railroad "beef." Then he pulled a chair over by the big station stove and sat down for a couple of minutes' warmth and rest.

The clock ticked on. Five, ten, fifteen, twenty minutes. The skipper took out his watch, checking it with the clock on the wall to make sure he had the right time. Walking restlessly to the office door, he looked out to see if he could see his engine or caboose; neither was in sight.

But at that moment, he couldn't even see a switchman standing by a switch not more than ten feet away. So back into the office he went, muttering. Where was that guy with that engine? What was that hog-head doing? Surely he could get through the yards.

An hour went by, and still no engine or caboose pulled by the yard office. By that time everybody was growing really interested. As usual there were a lot of theories offered; maybe the engine was grounded by filled switches and heavy snow; maybe they'd forgotten the old man. After waiting another half hour, a crew took a switcher and started up into the snow-drifted yards. Arriving at the end of things they found no engine, no head brakeman, no engineer, no fireman anywhere.

The snow blew into the switches the moment they were swept, putting an even white blanket over everything and leaving no tell-tale signs of which way the engine had gone after being cut off the train. It was cut off, of that they were certain. Then the conductor made a confession to us, at least it sounded like one.

"You know," he said, "that head brakeman of mine just made his first pay trip tonight. In fact he hadn't really been in that yard but once before and then only to make a cursory looksee." Then strange as it may sound, we discovered that the engineer hadn't seen the yard during a blizzard, and no doubt he was none too certain where he was headed for when the brakeman cut him off and gave him a go-ahead signal.

As we got back to the yard office, the telephone was ringing. It was the man in the Great Northern signal tower, calling to ask us if we'd started an engine light for St. Paul, without calling him to get the gate. Then, not even giving us a chance to explain what we thought had happened, he let loose with an ample flow of words lowrating our whole blankety outfit. When finally he ran out of breath and we asked him what engine it was, the towerman gave us—our lost engine, of course.

Believe it or not, the brakeman had cut off the engine and then headed straight through the yards out on to the main line, sailing straight for St. Paul. Some will say it couldn't happen that way. But it did.

By E. R. Biggin

Take Siding

WHEN Number 71 left they held the following orders:

Order No. 21

No. 77 take siding at G
No. 77 wait at G until three-forty
340 AM for Extra 410 East

Order No. 22

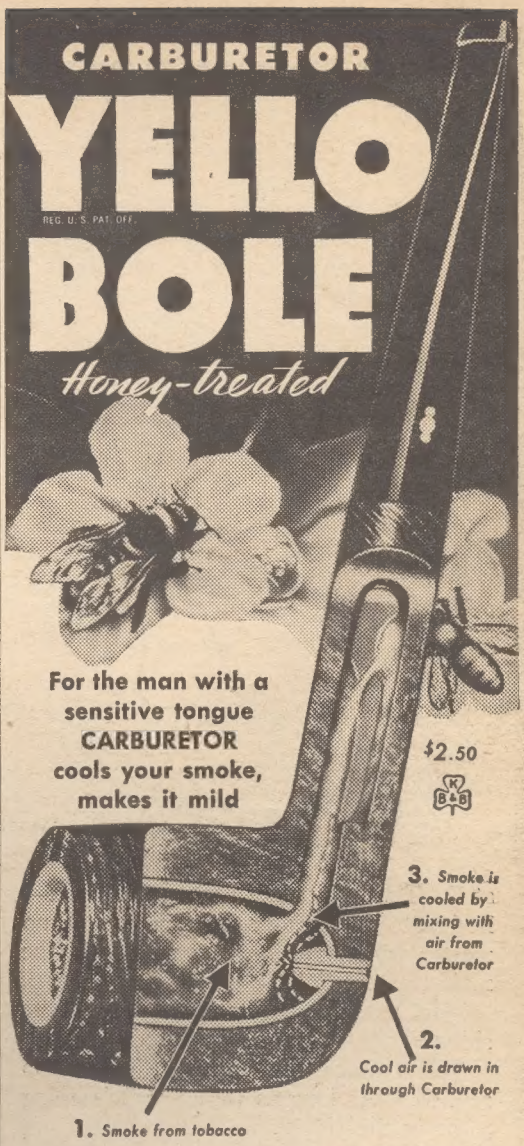
No. 62 meet
Extra 25 West at C
Extra 56 West at D and
No. 77 at E
No. 64 take siding at D

Number 77 arriving at G at 3:20 a. m., headed in the siding and had barely stopped when Extra 410 East went by at 3:25 a. m. As they were pulling out of the siding, the tallowpot crossed the cab to Engineer Johnson's side.

"Suppose," he began, "that we had arrived here after the 3:40 wait had expired and Extra 410 East hadn't made it. Would that order have put us through the siding?"

"Sure would," the hogger replied. "When an order says take siding in a separate sentence like that, you take siding—and that's that."

There was a red board at F for Num-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Identify Yello-Bole pipes by the honey-seal in the bowl. It keeps the honey fresh.

ber 77 and a flimsy waiting for them:

Order No. 25
No. 64 meet No. 77 at D instead of E

The hoghead read the order, then beckoned to the fireman. "Here's a case—the very thing you were asking me about," he said, producing Order No. 22. "You see that line on the bottom of this order says that Number 64 should take siding

at D. That's just like I was telling you—he has to go through the siding at D, no matter what happens. So we'll hold the main track at D."

"But Order Number 25 puts us in the siding," the tallowpot protested.

"That makes no difference," Johnson replied. "As long as we know he's going to be in the siding, we'll go up the main track."

And so they did. There was an obscured curve near the middle of the siding; and as Number 77 approached this curve slowly, Number 64 came fogging around it. Both engineers bigholed their trains and it was no more than a butting collision—no serious damage done.

"What the hell are you doing on the main track," Johnson demanded of Engineer Smith on Number 64, after they had crawled off their engines and walked up to inspect the damage.

"My orders entitle me to the main track," Smith replied. "You're an inferior train and should have taken the siding here for me. Why did you come up the main track?"

Johnson was fishing for his orders. "Look here," he said belligerently, shaking Order Number 22 at Smith. "The last line of this order puts you through the siding at D. You're at fault. Now back up and head through the siding and let me go."

"If there's any backing up to be done, you'll do it." Hogger Smith shook an angry fist at Johnson. "You must be nuts. That meet with Extra 56 West was changed to C after we had been delayed by a hotbox—just like he moved your meet up one station. That line on the bottom which put us in the siding here was in connection with the meet with Extra 56 West. When the dispatcher superseded the meet, he put us in at C for Extra 56 West; and we held no order to take siding here for you."

"Look here," Johnson produced Order Number 21. "If you got this order, you'd go through the siding at G, regardless of what happened, wouldn't you?"

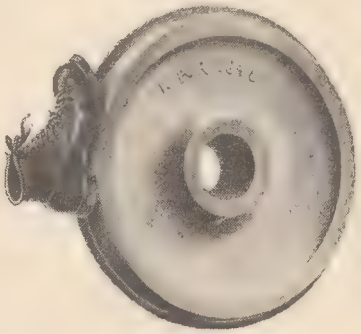
"Yes," Smith agreed, "but this isn't the same thing. When a line like that appears in a meet order, it applies only to the meet at that station; and if the meet is later superseded, the instructions to take siding are rendered invalid. Even if we hadn't had to go through the hole for Extra 56 West at C, the take siding portion of Order No. 22 would have been dead to us."

"As long as I hold Order No. 22 and it says you're going in the hole here, that's all I need to come up the main track."

"You better go to the rule car—you're a fathead, not a hoghead," Conductor Phillips on Number 77 told his hogger. "There was only one part of Order Number 22 which concerned you—that was the meet at E. When the dispatcher superseded that meet, Order Number 22 was dead as a doornail, as far as we're concerned. Get on that engine and start backing up and head through the siding."

What do you think?

(Answer on page 139)



"Shoeing" the Iron Horse

Every railroad car wears at least four pairs of "shoes." Not the kind of shoes *you* wear, of course, but heavy-duty brake shoes, upon which depend the safety and efficiency of every train that rolls.

These rugged cast-iron shoes will never actually be called upon to clamp down on train wheels speeding at 160 miles per hour. But in the testing laboratories where Association of American Railroad standards are set, they must prove they're tough enough to do just that.

Yes, and every brake shoe must fit in any brake assembly built by any brake manufacturer, so that it can be readily replaced at any railroad shop or terminal.

Fixing the requirements for such a commonplace item of equipment is just one example of the testing and development activities which the railroads carry on through the Association of American Railroads, their mutual agency for the improvement of *all* railroading. Comparable standards are also set for other interchangeable parts such as wheels, axles, trucks, draft gear, and safety devices.

This is part of the cooperative effort by which railroads, while competing with one another for business, make sure that every piece of railroad equipment meets strict specifications for strength, safety, and convenience. It is this kind of cooperation for progress which helps provide America with the most economical, the safest, the most efficient mass transportation system in the world.

ASSOCIATION OF AMERICAN RAILROADS

WASHINGTON 6, D. C.

Trojan Horsepower

By CARBONUS*

Are American Railroads Dieseling to Disaster in the Face of Fast-Dwindling Oil Reserves?

TO ANYONE who has followed the phenomenal growth of Diesel-driven motive power on American railroads and pondered its relation to national security, two outstanding facts are apparent. *First*: we are rapidly becoming an oil importing nation in order to supplement inadequate domestic oil production which has already passed the five and one-half million barrels-a-day mark. *Second*: we are about to make our transportation facilities entirely dependent upon oil, which is already in short supply—and this in the face of unforeseeable international developments.

Since the railroads are the life arteries of our nation, one is justified in asking the sixty-four dollar question: "What's

to become of us, in the not too unlikely event of World War III?" In a recent address before the members of the New York Railroad Club, Brig. Gen. P. F. Yount stated that, face to face with another national emergency, our armed services would require twice the amount of petroleum products used in World War II. We have also to consider the role of jet-driven aircraft in our forthcoming seventy-group air force. Jet propulsion, in relation to conventional gasoline-en-

Courtesy Erie Railroad

gine drive, requires a much greater amount of fuel, due to its lower inherent efficiency. In addition, the fuel-oil specification for jet-driven aircraft restricts the sulphur content to one percent or less, which at once creates a problem for the Diesel users.

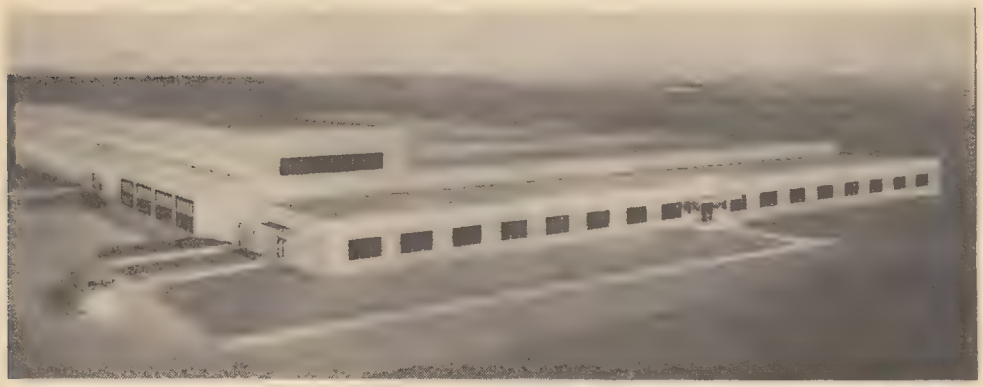
Those who lent eager ears to the siren call of early EMC salesmen will remember that the good Doctor's engine was supposed to burn the lowest quality of oil. We were told that sulphur contents running as high as three percent did not hurt this robust power plant in the least.

Now, however, after costly experience with sulphur-engendered corrosion, the Diesel fuel-oil specifications have become more and more exacting and there is bound to be a scramble between the armed services and the Diesel users for this high-grade fuel oil as jet-propelled aircraft make their appearance in ever greater numbers. It is a safe bet, too, that the fuel demands of our new air force will cut sharply into available gasoline, fuel-oil and lubricant stocks, seriously affecting highway transportation and throwing an additional burden on the railroads. Considering the vulnerability of our oil refineries in the event of aerial attack, stra-

** Due to his present position with the Atomic Research Commission the author prefers to remain anonymous. However, he has a distinguished record as a steam locomotive designer, both here and abroad.*

Courtesy General Motors

Products of General Motors' fifty-four acre LaGrange Plant will consume the greater part of one billion gallons of fuel oil burned by U.S. Diesel locomotives in 1948



And the swing has just begun, according to proponents of this form of motive power. Anticipating 85 percent Dieselization of our railroads by 1958, Electro-Motive Division will provide 150,000 square feet of additional floor space in this New Parts Department Building

tegic planners must inevitably insist upon huge stockpiles of liquid fuel of all kinds. Here again an additional demand will be created for the high-grade fuel oil used in our Diesel locomotives.

TAKING all of these facts into consideration we can see that complete Dieselization of our American railroads, as proposed and prophesied in many quarters today, could lead to disastrous military and economic consequences. In short, the day might well come when we would not have a drop of oil available for these gaily painted behemoths of the bright new transportation world. Then indeed would Diesel horsepower prove Trojan horsepower, incapable of self movement and packed with very real danger for all of us. There is, of course, a great deal of optimistic talk going the rounds about the producing of synthetic oil from coal. Su-

Photo by Bill Jernstrom, 114 Fremont St., Elkhart, Ind.

Six thousand Diesel horses drum out of Englewood (Chicago) Yards. Uncle Sam's fast-disappearing oil reserves will be nicked for another 3000 gallons when they lumber into Enola, 700 miles away

perficially, such reports seem to offer a way out of the impending oil shortage. It must be borne in mind, however, that synthesis of oil from coal requires very large amounts of cooling water—so much so that only a fraction of the heat content of the coal can be recovered in the synthetic product. For example, to produce one barrel of synthetic oil from coal it is necessary, with the best conversion processes yet devised, to circulate approximately 3,000 gallons of cooling water.

Swimming clubs intent upon year-round aquatics would no doubt warm to such a program more than John Q. Public who, in the final analysis, would be called upon to pay at least twenty cents a gallon for liquid fuel manufactured in the huge and costly plants required for synthetic processing.

Under these circumstances it is ridiculous to argue that all-out Dieselization is justified by the greater number of ton miles which such power produces from a given number of BTU's, nor do we follow the line of reasoning of at least one railroad president who in one breath maintains that all coal-burning steam locomo-

John L. Lewis, salesman. In which case, where does the argument for synthetic oil from coal fit in?

Photo, Courtesy Frisco Lines

tives should be scrapped because they place our railroads at the mercy of John L. Lewis and in the next assures us that if we run out of oil there is still plenty of coal along his line from which to turn out the synthetic fuel. As Alice in Wonderland might say: "It's all so confusing; where am I?"

Fortunately the coal reserve is as good and better than our railroad president finds it. At the present rate of consumption, the supply available within the territorial United States should last us at least three hundred years. Discounting the Lewis aspect, why does he and, with him, virtually all of our present railroad administrators, discredit as obsolescent, the steam locomotive, whose fuel demands in no way jeopardize our future national security?

Superficially, there is some justification for the viewpoint. It is no secret, for example, that when, during the days of World War II, our railroads carried an unparalleled volume of traffic almost exclusively with steam power, the motive power situation was already decidely unhealthy.

In 1939 most of our coal-burning steam locomotives were already obsolete. What with the wear and tear that followed, and the lack of any systematic plan for replacement—or even reconditioning—of antique equipment, the present inventory of serviceable steam power would not be in a position to carry the burden of any future wartime traffic, especially in the event of a sudden and all-out aerial attack.

Apart from this the champions of the Diesel-electric are quick to cite the inherent advantages of their protégé. It starts its trains more smoothly. In the case of switchers it burns no fuel when not in use and may be left unattended regardless of weather conditions. It creates less soot and smoke nuisance. It provides greater comfort for the operating crews, who ride in a weather-tight, clean cab. Most important of all, it can be depended upon to handle trains without the prima donna antics so prevalent nowadays with coal-burning steamers.

For each notch of the Diesel throttle, thanks to the automatic governor control of the Diesel motor, there corresponds a drawbar pull which does not vary from day to day. No longer does it take the dexterity of a throttle artist to make a good run.

When going downhill in mountainous territory with heavy tonnage behind, the Diesel has the advantage of dynamic braking; that is to say, converting the traction motors into generators. The momentum of the train is then used to generate electric power and the energy thus absorbed is dissipated through a system of grids as resistance heat. Thus a lot of wear and tear on the brake shoes and tires is eliminated and, with them, the customary stops to set up retainers. Nor is there any longer the need for stopover periods to allow car wheels and shoes to cool off. Also, the number of bad-order cars is materially reduced.

Finally, the Diesel locomotive manufacturers have been able to standardize to such an extent that mass production methods, with belt-line assembly, effect material reductions in the cost of the finished product.

Coupled with these very real advantages goes the ornamental effect of modernistic styling, with a streamlined front end and chromium plated fittings. Is this not real progress? What are the Diesel antagonists beefing about? The railroads have been damned for so long for being old-fashioned and ultra-conservative that it is about time to come out with the "new look".

EVEN the multitude of Americans who call themselves steam fans cannot gloss over these facts. Morever, nearly every coal-burning locomotive, in its present state, has some very undesirable features and it's no use kidding one's self about them.

Here are the major deficiencies:

It is dirty and creates a smoke nuisance

(Continued on page 21)

Courtesy Chesapeake & Ohio

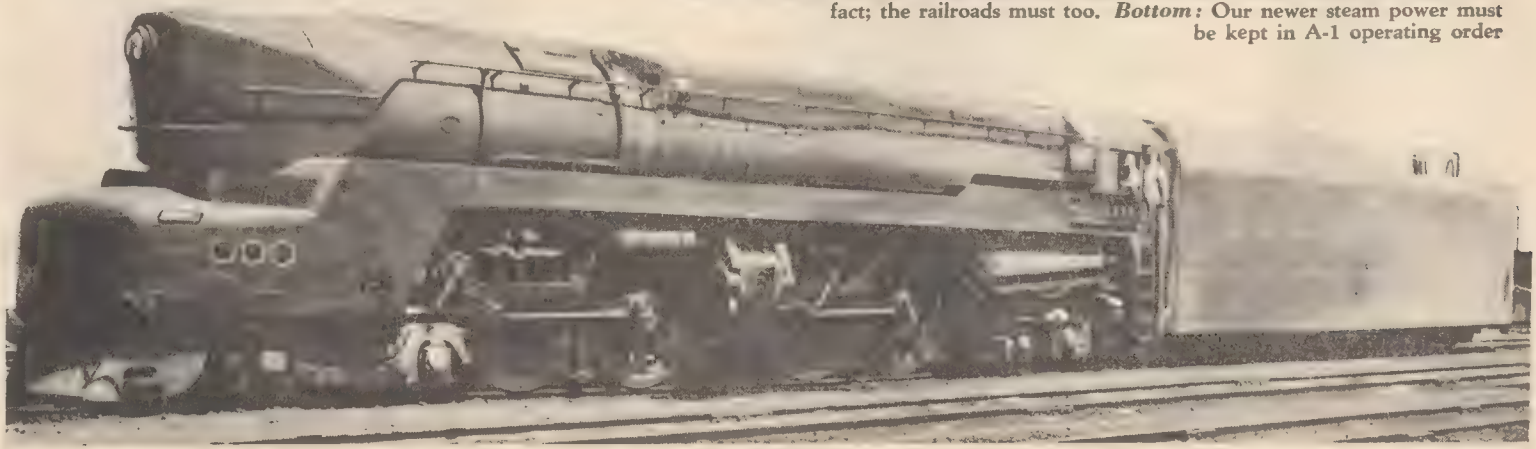
Known reserves of coal in the territorial United States total three trillion tons. Use of this fuel by our railroads would in no way jeopardize military requirements. The holier-than-thou argument that highway vehicles consume more liquid fuel than locomotives will be chill comfort if the wells run dry

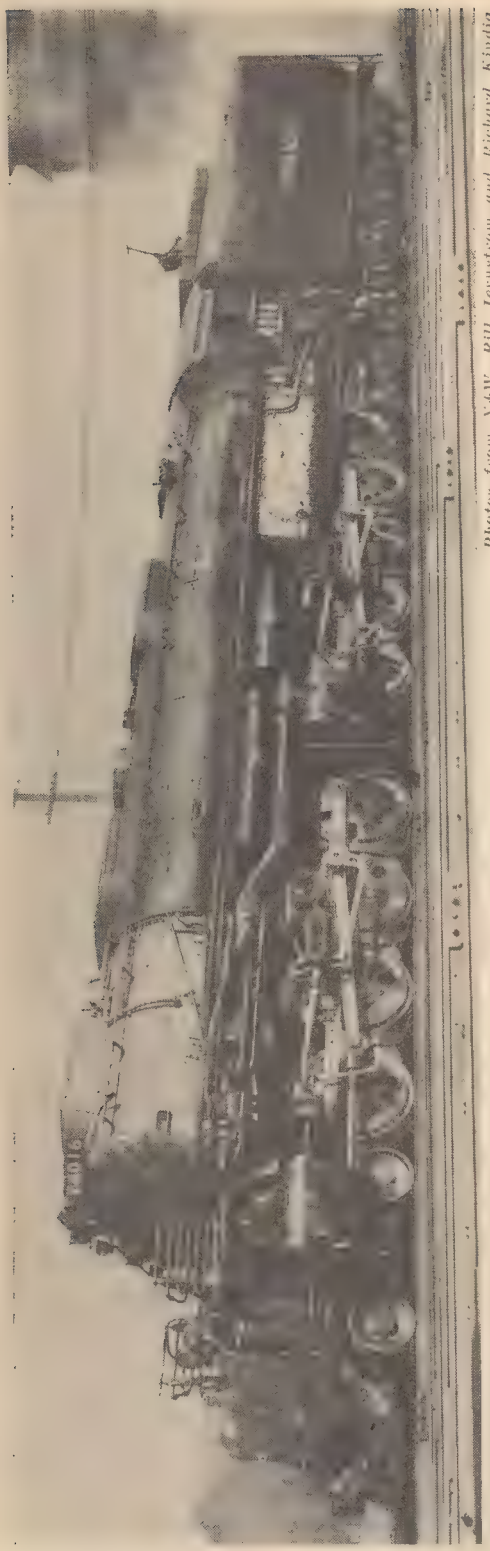
Picture 6600 steam locomotive tenders like those shown above, each carrying 15,000 gallons of water. Now circulate that fluid through a cooling tower twenty-five times daily and you have some concept of the water requirements of one synthetic oil plant (Garden City). Private interests will naturally be loath to invest capital in such vast experimental projects as long as the supply of natural crude holds out

Courtesy Erie Railroad

When a staunch steam disciple like the Erie succumbs to the siren call of the Diesel, it is more than time to take stock of the old coal-burner. Its faults, though many, are correctable, and it has many inherent features in its favor

Top: That individual carriers could well take the lead in the revitalizing steam power is demonstrated by outstanding accomplishments of the Norfolk & Western. ***Center:*** Experimental design is costly. Other industries accept the fact; the railroads must too. ***Bottom:*** Our newer steam power must be kept in A-1 operating order





Photos from N&W, Bill Jeraström and Richard Kindig

problem. Its cost of maintenance is high. It starts trains with a jolt. Its availability is low, in comparison with the Diesel locomotive. Its performance is uncertain and it needs a lot of skill in handling. It suffers from insufficient ash-pan capacity. Its boiler is troublesome to maintain and staybolt troubles are a headache. Its fuel cost is too high by current comparison with the Diesel. It throws cinders on the track and creates a drainage problem for the ballast. It is hard on the rails at high speeds. It has no dynamic brake. Provisions for the crew's comfort are inadequate. Its design is not standardized and its cost is therefore higher than it should be.

In looking over this indictment one's first impulse is to throw in the cotton waste and concede victory to the Diesel locomotive. However, things are not at all as bad as they appear. Once we realize that whether we like it or not we must reverse the impending Dieselization of our roads to prevent the possibility of a transportation debacle worse than that which brought Germany to her knees in 1945, it follows that we will find it not only advisable but necessary from the standpoint of home preparedness to put our existing coal-burning steam locomotives in tip-top shape. At the same time we must conduct a vigorous program to develop new and more satisfactory forms of coal-burning motive power.

The record of the independent locomotive builders who made no concerted move to meet the Diesel challenge and finally capitulated altogether would seem to indicate that a revitalized steam locomotive cannot be expected from that quarter. Someone else will have to step into the picture and the railroads themselves might very well take the initiative. One has only to look at the amazing performance of the Roanoke-engineered motive power fleet of the Norfolk & Western to see what can be done in this direction. Reappraisal of the steam locomotive shortcomings, in the light of such advanced design, relegates the greater number of

these apparent weaknesses to the limbo. In brief, the case for Diesel supremacy is based largely upon the pathetic fact that about ninety-three percent of our steam haulers bear the engineering stamp of the early '20s. Had the development of the Diesel locomotive been dependent upon gentlemen in their late sixties and seventies, as has too often been the case in the steam field, it is safe to assume that the first Burlington *Zephyr* would never have reached tornado proportions.

other roads and one of them, at least, has had costly reason to regret that it did not do so, instead of pinning its hopes on a more flamboyant but less soundly designed four-cylindered job.

In passing it might be noted that the Interstate Commerce Commission recently fixed the depreciation rate for motive power other than steam, not owned but used by the New York Central System, at 6 percent. *The corresponding depreciation rate for steam is 3.4 percent.*

Courtesy Rail Photo Service, 305 Sherman Bldg., 93 Mass. Ave., Boston, 15

Until recently poppet valves received very little attention on this side of the Atlantic. Ironically, fourteen years of experimenting finds today's efforts based largely upon the Dabeg mechanism applied to D&H Pacific 653 in 1934

LET'S CHECK, point for point, what the Norfolk & Western people have done to debunk the Diesel myth.

In the matter of cleanliness, high-powered jet washers make a *J* or *A* or a *Y* Class engine just as immaculate as a General Motors' *F-3* and at no higher cost. Smoke nuisance can be eliminated by the use of supplementary air jets as demonstrated by this road and the motive power department of the Louisville & Nashville.

Cost of maintenance, another bugaboo, has been held to nineteen cents a mile with the high-stepping *J* Class 4-8-4. This type of power, equipped as it is with roller bearings and centralized lubrication, might well be adopted as a pattern for

Thus, a three-unit Diesel which today costs in the neighborhood of $600,000 is burdened with a depreciation rate of $36,000 as compared with $10,200 for a $300,000 coal-burning steam engine of the same performance. This finding, incidentally, is so completely at odds with the enthusiastic claims of the Diesel proponents, that it suggests the virtue of a thorough investigation by a disinterested outside body, to check up on actual costs. It just does not make sense to expect as complicated a piece of machinery as a Diesel locomotive, with its thirty-six power cylinders and their pistons and liners, a host of fancy governors and automatic alarm systems, three sets of electric gen-

erators, twelve traction motors, etc., etc., to show a low maintenance figure throughout a period of from ten to twenty years.

As for availability, Norfolk & Western engineers have again demonstrated that a really modern steam locomotive can be expected to match the Diesel in every respect. Without trying to be too hard on the internal-combustion boys, with their wonderful tales of super-duper dependability, last winter's cold spell produced some mighty funny incidents. The appearance on quite a number of roads using Diesels of a big free steamer behind their dazzling, Ducoed darlings was explained by red-faced officials as a masterful bit of operating ingenuity, necessitated by the inability of the newer power to heat the cars. Granting that the problem may eventually be overcome either through the use of more effective and dependable flash-boilers or the adoption of a car-heating trailer unit, the cost is certain to drop no lower than eleven cents per train-mile at current oil prices or a neat hundred dollars, let us say, for flash-boiler fuel availability between Harmon and Chicago.

Courtesy American Locomotive Co.

You can standardize and simplify controls, but you can't keep one O&W engineer from getting a soulful hee-haw out of his Diesel airhorn

WHEN we examine the undeniably fine starting characteristics of the Diesel, we must concede that the steam locomotive builders have been asleep at the switch. Their smart competitors were quick to realize that high cylinder horsepower does not necessarily insure good road performance. It has been proven that a two-unit, 3000-drawbar horsepower Diesel job can frequently make better time on an exacting schedule than a 6000 horsepower steam locomotive. Why is this so? Simply because the former uses a much higher proportion of its weight to produce starting tractive effort, while the greater horsepower advantage of the steamer makes itself felt only in the top-speed brackets. Where stops are frequent this deficiency in steam drawbar pull presents a serious handicap, and one which is vigorously emphasized for the traveling public by the freight-engine starts which are far too common with this form of power.

Can the steam locomotive people match the Diesel in this respect? It is believed that they can, for a really up-to-date high-speed booster is well within the realm of possibility. Instead of clinging to the rather primitive donkey engine carried by the already overloaded trailer truck, why not take advantage of the achievements of the automotive industry? It is perfectly

Courtesy Baldwin Locomotive Works

Above: **For every Diesel horsepower under her hood, the Purchases and Stores Department must stock four dollars' worth of replacement parts**

At left: **Achilles' heel of the otherwise ideal electric locomotive is its current-delivery system. With a single, well-aimed blow an enemy bomber could disrupt an entire railroad division so equipped. More extensive use of this power may be expected as hydro-electric output is increased, but attention must be given to standby steam equipment**

Courtesy Great Northern

feasible to transfer the booster engine to the engine bed and to use a propeller shaft drive with a clutch on the high-speed output shaft of the auxiliary steam engine. Either the trailer truck axles or those on the tender trucks could then be provided with a hypoid gear drive, flexibly connected with the clutch, without causing the clash of the conventional pinion and gear arrangement.

In the case of entirely new coal-burning steam locomotive designs, we might well take a lesson from our British cousins. Long before the Diesel made its appearance, they recognized the need to provide, in certain services, a high starting tractive effort in relation to engine and tender weight, while at the same time maintaining good riding qualities at high speed. The Mallet, which meets the first requirement, suffers, as we know, from front-end shimmy at high speeds, as the forward engine unit has no real mass tied to it to absorb the inertia effects of the reciprocating masses. The British efforts, which take the form of the Garratt locomotive, provide a heavy mass of water and coal bunkers which are an integral part of the engine. The result is a design which provides high tractive effort at starting and smooth running in the top speed brackets. At the same time the placement of its boiler between the pivots for the engine units makes it possible to obtain a deep and unobstructed ashpan below a very large firebox with ample combustion volume.

To those acquainted with stationary boiler practice the low efficiency of the present-day locomotive boiler is inexcusable. In a paper pertaining to the Pennsylvania's *T-1* Class presented to the New York Railroad Club some time ago, your author gave figures showing that at a maximum evaporation rate of 100,000 pounds per hour the boiler efficiency is only forty-three percent, with cinder losses accounting for most of the losses.

It would be interesting to see what a Garratt type would be able to show under similar conditions, especially if a turbine-driven exhauster was provided instead of the customary blast pipe, with its very high back-pressure loss. Also, the Garratt type could be provided with an ash conveyor ahead of the firebox, since there is no obstruction below the boiler and this would make it possible to extend locomotive runs considerably.

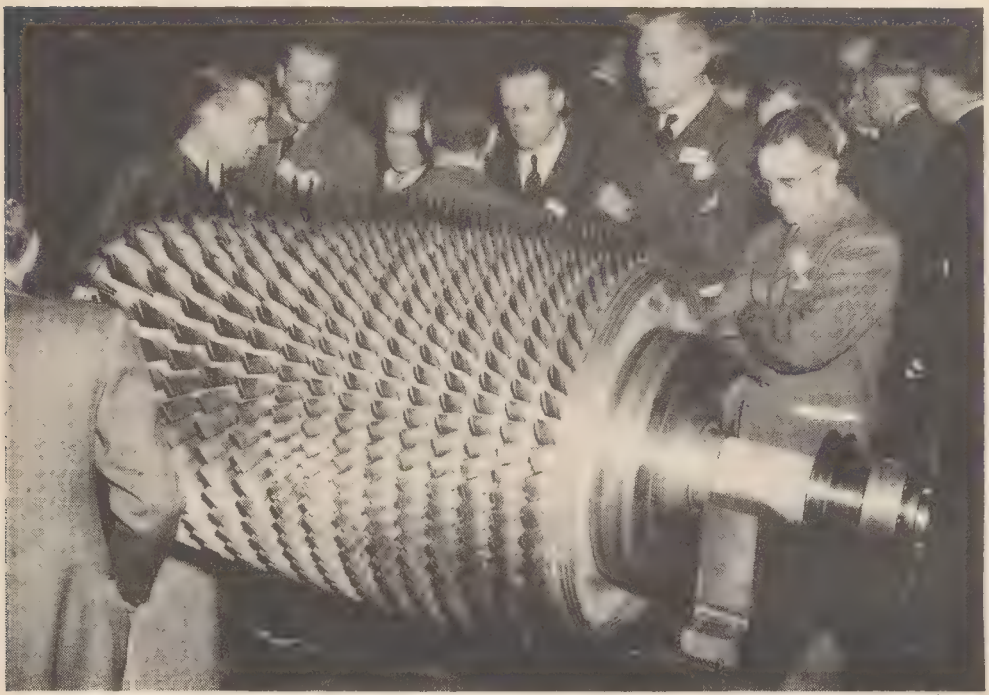
In order to insure dependable performance, it should also be stressed that a strict specification of coal is a *sine qua non*. Why should the Diesel be babied with a uniformly high grade of fuel while the steam locomotive is expected to de-

velop steam from everything from shale to discarded miners' picks? Even if our railroad had to pay a premium for, let us say, nut-type stoker coal, in the long run it would probably pay for itself in improved performance and reduced repair bills.

American engineering skill is more than a match for the remaining ills of the reciprocating action locomotive. A dynamic brake with optional recuperative features is perfectly feasible, as well as a much improved water-tube boiler with attendant freedom from staybolt troubles. Poppet valve gears, which long ago passed the experimental stage in France, where consistently low water rates (eleven pounds per cylinder horsepower hour) are the daily rule, must be considered as an important part of any revitalization program.

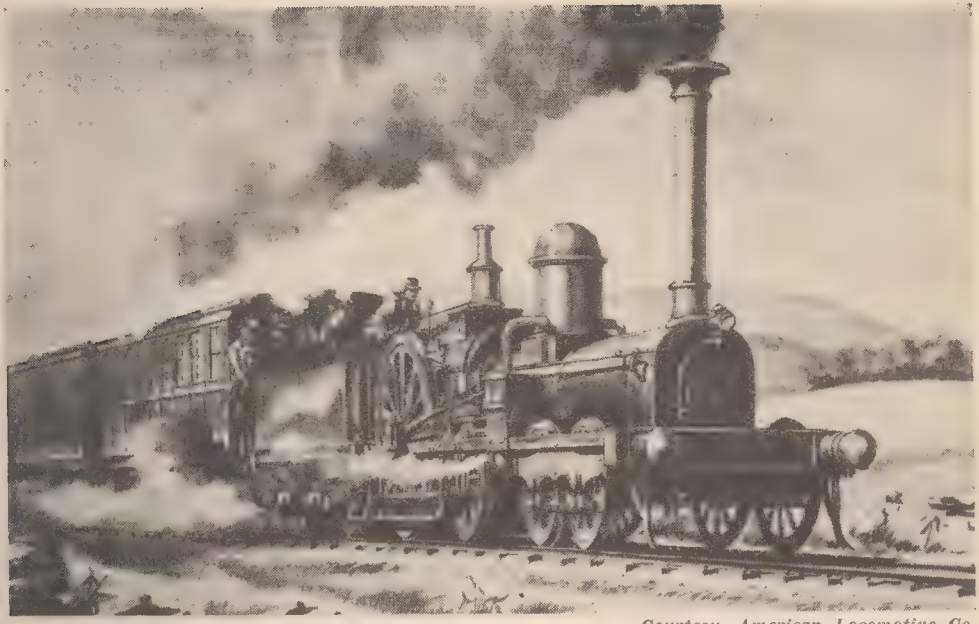
As we have already stated, the railway supply industry has become so thoroughly unsold on the steam locomotive that it is almost impossible to evoke any interest from this quarter. It is common knowledge in the trade that some of the most important decisions pertaining to steam engineering problems of the most complex type have been made in the past, over the objections of competent technicians, by a lawyer and a former filing clerk, both devoid of any engineering background, but who were the most influential people in the industry. No wonder the steam locomotive is about to be scrapped!

In summation, it should be borne in mind that the coal-burning gas-turbine locomotive is likely to be the master in the field, if the problem of fly-ash removal is once solved. In the meanwhile, however, we cannot jeopardize our national security by abandoning the coal burning steam locomotive. Its re-entry in the national transportation field is a *must.*



Courtesy General Electric

Kinetic Cactus. Fifteen-stage axial flow compressor rotor of GE-engineered, 4800-horsepower gas turbine. Until erosive action of fly-ash can be minimized, the use of powdered coal will not be feasible in such machines



Courtesy American Locomotive Co.

Artist Howard Fogg brings the ***Lightning*** back to life in a dynamic wash drawing

Schenectady Centennial

AT THE REQUEST *of many readers, RAILROAD breaks precedent, here, by reprinting the story of the American Locomotive Company which appeared in our May, 1937, issue under the title:* The Iron Horse in the Making. *For the sake of historical accuracy we have deleted material which dated this feature, substituting (in italics) historic and contemporary information and rounding out the saga of the great plant which this month celebrates its Hundredth Anniversary*

LIKE the automobile industry, the locomotive-building industry has seen a lot of manufacturers come and go. A list of works that have started, flourished and died during the Nineteenth Century would fill a page or more of fine type, and then probably would not take them all in. Construction of the iron horse in those days demanded no great amount of special equipment, and almost every machinist who owned a fair-sized establishment tried his hand at a locomotive.

But engines grew bigger and bigger, and cost more to build. Construction grew more complex and difficult, and called for specialization. Soon it was evident that a large locomotive works could build engines more cheaply than many small ones, just as it was already evident years previous that a machine manufacturer could not make engines on the side, but had either to put everything into them or forsake them entirely.

Today there are six large companies building locomotives for United States railroads: the American Locomotive Company (ALCO), The Baldwin Locomotive Works, Fairbanks, Morse and Company, Electro-Motive Division of General Motors Corporation, Lima-Hamilton Corporation and the General Electric Company. The latter company also supplies

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some of the other builders with the electrical apparatus necessary for the propulsion of oil-electric engines. It works hand in glove with Alco in producing large units of this kind while the Westinghouse Electric Company does the same with Baldwin. There are also two runnerups who specialize in producing industrial and export motive power both steam and Diesel. These are the H. K. Porter Company and the Vulcan Iron Works.

Besides these there are our two Canadian neighbors, the Montreal Locomotive Works Limited and the Canadian Locomotive Company Limited. The Locomotive building industry is now devoting most of its time to developing and building locomotives that are powered by internal combustion oil engines working on the principles invented by Rudolph Diesel with electrical transmission.

Of these companies Baldwin is the oldest, with 117 solid years of locomotive building to its credit. It is hard to rank Alco fairly because it was formed in 1901 as a consolidation of eight works, with the ninth and oldest taken over four years later. It was the Rogers Works of Paterson, N. J., whose engine building activities began in 1835 (*Railroad Stories*, June, 1933). The Lima Company, dating back to 1871, did not enter the road engine field seriously until after Alco's birth, when many railroads supported it because they doubtless feared that the two big companies might not create sufficient competition to keep prices down.

The eight works which became the American Locomotive Company in 1901 were Brooks of Dunkirk, N. Y.; Cooke of Paterson, N. J.; Manchester of Manchester, N. H.; Pittsburg of Allegheny, Pa.; Richmond, of Richmond, Va.; Rhode Island, of Providence, R. I.; Schenectady, of Schenectady, N. Y. and Dickson of Scranton, Pa.

But the Schenectady plant, which had turned out some 6500 engines in a half century, was promptly made the chief one. When you think of the American Locomotive Co. as an engine-building firm, therefore (it also engages in many other activities, and controls the Montreal Locomotive Works), you are thinking of Schenectady. And now that Baldwin has moved from its ancient home in the heart of Philadelphia to the suburban town of Eddystone, Pa., Schenectady is the oldest locomotive plant in America.

Locomotive building in Schenectady started in 1848, when a local firm called the Schenectady Locomotive Engine Manufactory was organized. Its prospects were brilliant, for there was bound to be a fine market for its machines right at home. Just as New England had been already criss-crossed with rail lines, so was New York State being built up. What is now the New York Central was almost completed clear across the state, forming a great artery of commerce to the west. The new plant, appropriately enough, was situated near the Erie Canal, whose days were being numbered by the iron horses which ran along its banks.

But there were few men who knew anything about building locomotives, at least in Schenectady, and the new manufactory had to go down to Philadelphia for its talent. With what they no doubt thought was excellent judgment, the owners of the company chose two of the Norris brothers, Edward and Septimus, who with their brothers Richard Norris and William Norris, also locomotive builders, had made quite a name for themselves in Pennsylvania. The deal with the Norrises was worked out in such a way that they eventually were to become owners of the works, and operate them as a branch of the Philadelphia business.

When the Norrises took over the management of the new plant in July, 1848, they stipulated through the elder brother, William Norris, the amounts of money that were to be expended for the construction and equipment of the works. The stockholders, who were all citizens of Schenectady, were to contribute an amount not to exceed $40,000. Of this sum, $20,000 was to be for the erection of buildings, $17,000 for tools and $1,000 for the land on which to build the shops. The tools and machinery, of which

there was actually $10,576 worth, were to be furnished by Edward S. Norris.

CERTAINLY the two members of the firm of Norris' Locomotive Works were not an illogical choice. Septimus, particularly, was a man of unusual ability. For the Philadelphia & Reading he had designed the *Chesapeake,* the first ten-wheeler (4-6-0), and his firm had completed it in 1847. The engine was strikingly modern. Every locomotive with the 4-6-0 wheel arrangement built afterward has embodied the important features of its design.

The Norrises had also designed engines of the English Crampton type for the Camden & Amboy, whose President, Robert L. Stevens, had visited abroad and had been much impressed with them. They used a six-wheel leading truck, a single set of enormous driving wheels, and cylinders with unusually long strokes. (*Railroad Stories,* September, 1936, pp. 18 and 20). The first of the Cramptons for the Camden & Amboy, however, was not finished until May, 1849, and when the Norris brothers went to Schenectady in 1848 they took along with them a vast enthusiasm for this yet unfinished single-driver, high-wheeled engine.

Before building this freak, however, they completed some conventional engines, most of which went to lines now forming part of the New York Central Railroad and that has continued to this day, most of the latter's locomotives having been built at Schenectady.

Apparently the Schenectady works under the Norris management built very few engines. The lack of authentic records or the shops' construction list makes it necessary to rely upon railroad company rosters of the day and we know from these that the following engines were finished for the Utica and Schenectady Railroad: The Dioumede, Adjak *and* Achilles *and* Lightning, *all built in 1849, and the* Sherwood *and* Seymour *in 1851. In October 1850 two locomotives of the 4-4-0 type were built for the Philadelphia and Reading. They were named* Mohawk *and* Genesee *and ran for many years on that road, but no photographs seem to have been taken of them or of any Norris-Schenectady engines. Of all of the foregoing, none seems to have been drawn or painted except the* Lightning *which was the subject of a builders' lithograph shown in Emil Reuter's series of books entitled* American Locomotives *published in 1849-1850. This large plate is engraved with the caption,* Express Passenger Engine "Lightning", built by E. S. Norris, Norris Works, Schenectady, N. Y., *and the builder's number shown on a plate placed over the driving wheel is 9. We know that this engine came on the road late in the year 1849, probably in December. It was of the large single-driver type, then being built experimentally by a number of locomotive shops, including the Norris Brothers in Philadelphia, Baldwin, Winans and others following the Crampton style that originated in England.*

The Lightning *was described in the* American Railroad Journal *on Saturday, February 9, 1850, as follows:*

> *"The* Lightning *is the name of a new locomotive of extraordinary speed and capacity, recently built at Norris's Locomotive Works, Schenectady, for the Syracuse & Schenectady railroad. As she has proved herself to be an engine of remarkable power, the following brief description will be of interest:—Her cylinders are 16 inches in diameter, 22 inches stroke, placed horizontal, midway of the cylindrical part of the boiler. One pair of driving wheels seven feet in diameter are placed immediately under the fire door. In front of the fire box are placed a pair of bearing wheels four feet in diameter. The boiler is supported in front by four wheels of three and one half feet diameter in a truck. The eccentrics are placed on the outside of the wheels, attached to the crank wheel. Her valves are worked direct, without intervention of a rock arm.*
>
> *"She uses her steam expansively from one eighth to seven eighths of the stroke of the piston, always preserving the same lead as when working at full stroke. Great care has been taken to prevent the condensation of steam before it enters and while it is doing its duty in the cylinders. The wheels were manufactured by the Messrs. Norris of solid wrought iron, the spokes, hub and rim all in one solid mass. She was built at Norris's Locomotive Works, Schenectady, by Edward S. Norris, after a plan*

furnished by his brother, Septimus Norris. Her power as a daily duty is to haul six hundred passengers at sixty miles an hour.

"Her boiler contains 116 tubes, 2 inches diameter, 10 feet 3 inches long; fire box outside measures 5 feet by 3½ feet, water spaced all around, three inches. The boiler stands five feet four inches above the surface of the rail. She has a beautiful brass lever clock—a new plan for ascertaining the height of water in the boiler, shown in a glass tube; also a small hand lantern; an odometer attached to the wheel for registering the number of revolutions of the driving wheels; also a contrivance for adjusting any desired transfer of weight from the driving wheels to the bearing wheels. The cost of this machine, we understand is $15,800.

"She recently made the trip from Utica to Syracuse, a distance of 53 miles, with a train of six 8-wheel cars, against a strong head wind, in 60 minutes. Her running time was 54 minutes—a feat we believe that has never yet been equalled in any part of the world. Her quickest time made was 16 miles and 88 feet in 13 minutes and 21 seconds, with eight 8-wheel cars. This was done February 2, 1850.

"The enterprising builders, we are happy to learn, are prosperously and extensively engaged in the manufacture of railroad equipments. They have extensive shops with every facility for carrying on work on a large scale and they now employ between 200 and 300 men. Of the character of their work the above described engine is the most satisfactory evidence that can be given.

"Incidentally the Lightning *would be a good prototype for some enterprising model builder."*

The *Lightning* did not belie its name. It could run fast—faster, indeed, than there was any need for it to run. But it could do so only when it wasn't hauling much. For it lacked both tractive force and horsepower: it couldn't start any kind of a load, and its tiny boiler could just manage to generate enough steam to take care of the pistons' demands when the engine was hauling that load at speed.

A year of "service" was enough to brand the machine a failure, and the anticipated fame of the new manufactory died with it. Work at the new plant languished. In 1850 the Norrises went back home, after giving up their interest in the business. Undaunted by his sad experiences at Schenectady, Septimus went on not only to join his brothers in building more engines, and good ones, too, but to become the author of several technical books.

THE Schenectady plant stood idle for nearly a year. Then, on June 14, 1851, it was set up as the Schenectady Locomotive Works by four local men, John Ellis, Sebastian Bradt, Daniel D. Campbell, and Simon C. Groot, the last two of whom had been associated with the Norrises. Ellis, who was a 56-year old Scotsman with a vast fund of experience as a railroad construction contractor for the Utica & Schenectady, the Albany & Schenectady and the Boston & Worcester, was president.

He also was the brains of the concern. If he had done nothing else to show his judgment, his choice of Walter McQueen of Albany as master mechanic and general superintendent would have proved that. A railway master mechanic before he came to Schenectady, McQueen became one of the nation's best engine builders, and it was no unjust accident that caused railroad men all over the country to refer to Schenectady engines as McQueens. Even today a few old timers do so, though McQueen died in 1893, and there is hardly an engineer or fireman in the land who is ignorant of the designation.

Under McQueen, Schenectady built locomotives—good, reliable machines, with few if any freak designs, crazy styles or noble experiments. No doubt the disastrous beginning of 1848 and 1849 had taught its lesson, but there is also no doubt that McQueen knew how to put together iron horses. His engines dominated the motive power roster of the New York Central & Hudson River R.R. (now New York Central) for many years. The

Central stuck pretty close to Schenectady, not only because it hauls raw materials to Schenectady, but also because it found the Schenectady engines to be what it wanted even in the days before standardized quality, when one builder often constructed iron horses palpably superior to those of another.

McQueen's engines looked businesslike, too. Decoration in those days invariably consisted of a lot of jig-saw ornamentation and fancy work wherever room could be found for them. While McQueen did not shun them entirely, he preferred a simpler beauty, and most of his engines showed it. Smooth brass covers were used on their domes, and their general lines and proportions were almost always pleasing to the eye. A noticeable small characteristic of his earlier engines was a large circular brass cover on the boiler check.

Incidentally, McQueen was more or less responsible for establishing in Schenectady what is now the General Electric Co. His reputation was so high that several prominent citizens, headed by State Senator Charles Stanford, induced him to join with them in founding the McQueen Locomotive Works. Eight acres of land were bought where the General Electric Co. now stands, and two shops were erected there in 1882.

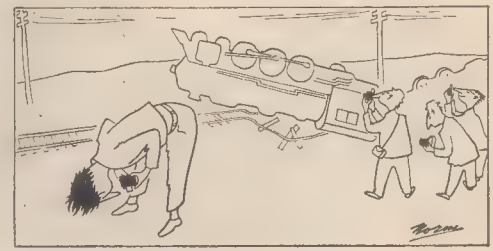
But Senator Stanford died, the Ellises succeeded in holding onto McQueen, and the Edison Machine Works of New York City bought the McQueen shops, aided by a subsidy of $7500 from prominent Schenectady citizens. The Edison Machine Works later became the General Electric Co., and the McQueen shops thus were the predecessors of today's great GE plant.

President John Ellis died in 1864, whereupon ownership of the works passed to his son John C. and, in part, to Walter McQueen himself. The Ellis brothers, all sons of old John, however, dominated the big offices. Charles G. became treasurer and later succeeded John C. as president, only to be followed, in 1891, by Edward, the third brother. He in turn was succeeded in 1897 by the fourth brother, William D. Ellis, who was chief until the firm was taken over by Alco in 1901. McQueen never got any higher than vice president, but he was probably better known than them all except perhaps John Ellis. "Ten Wheel Freight Engine by Walter McQueen—Built at Schenectady Locomotive Works", says a big-print caption on an old lithograph. That seems to put it pretty well.

Two years after old John Ellis died the Works were partially destroyed by fire, and new machine, boiler and erecting shops were built. The plant was the pride of Schenectady, with nine huge buildings.

For a long time railroads and builders had been investigating the possibilities of a locomotive with compound cylinders, that is, an engine using the exhaust steam of one (high pressure) cylinder in a second (low pressure) cylinder before finally exhausting it through the stack. The purpose of compounding, of course, is to save steam and hence fuel and water. Though compounds had been used in Europe and tried out in America before that time, they came forth in a big way after 1889. That was the year in which Sam Vauclain, down at Baldwin's, perfected and patented what became known as the Vauclain Compound. It used four cylinders, two on each side, and connected to the same crosshead.

It was also the year in which Albert J. Pitkin, the Schenectady Works superintendent who had been trained under McQueen, took out a patent on an intercepting valve for a two-cylinder compound. Before 1889 was up Pitkin had built his engine—the first compound, with only two cylinders, the small one on the



left side, and the large one on the right side. It was Number 284, a ten-wheeler for the Michigan Central, and it had the same general specifications as the line's regular ten-wheelers except for the compound features. According to road tests made on the compound and the simple engines of the same class, the compound did the work on 18 percent less coal.

After that the compounds issued forth in a steady stream, although the cross-compounds never were as popular as the Baldwin machines. It was hard to balance them; the inequality of weight on each side, no matter how well accounted for, produced stresses and pounds which improved neither the life nor the performance of the locomotive.

Shortly after the turn of the century the cross-compound began to lose favor, and the American Locomotive Co. applied its talents to developing a four-cylinder balanced compound, which used two high-pressure cylinders between the frames, connected to the first driving axle, and two low-pressure cylinders outside the frames in the usual fashion. The first one was built in 1904 to the design of Francis J. Cole, the company's mechanical engineer. Because all the working parts were in balance, it was much easier on the track than either simple or cross-compound engines.

From an historical point of view, all compounds were rather unsatisfactory contributions to the science of locomotive efficiency. But they were in demand; they saved fuel and water and what money was left after repairs were made. With the advent of the steam superheater, the economies thought to be effected by them could be effected surely by simple engines using superheated steam. From then on compounds of all kinds died out, and today they are practically extinct, at least in everyday service.

THE third of the company's great mechanical men was Francis J. Cole, already mentioned in connection with the four-cylinder balanced compound. After a successful career on the Baltimore & Ohio and the Northern Central, he accepted the position of assistant mechanical engineer at Schenectady under J. E. Sague. When Alco was formed he stayed on with the new company, and when Sague became vice president Cole was appointed mechanical engineer.

Cole was not only responsible for the final development of the compound; he was one of the country's foremost designers of simple locomotives up till the time of the first World War; he originated the principles known as Cole's Ratios for the engine boiler; and he perfected a good many appurtenances, such as the Cole trailing truck. One of his most outstanding creations was Alco's 50,000th engine, built in July, 1910, the first locomotive in the country to use cast steel cylinders and the first of the big modern Pacific types which have dominated passenger service until quite recently. This engine is still in service, having been sold to the Erie R.R., on whose list it is now Number 2509. Cole, incidentally, died in 1923.

When the American Locomotive Co. was formed on June 24, 1901, the Ellises passed out of the picture. Samuel Calloway, president of the New York Central, was hired as the new president, and Albert Pitkin became vice president. He succeeded Calloway three years later, only to die a year after he had been in office.

Waldo Marshall then became president and served from 1906 to 1916. On January 1, 1917, he was succeeded by Andrew Fletcher, who remained president until his death on November 29, 1925. Following him came William H. Woodin, president of the American Car and Foundry Company, who assumed the presidency of Alco on December 3, 1925. His combined duties proved too arduous and Frederick F. Fitzpatrick became president in May, 1926. He served only until the following year when he died and Mr. Woodin again took over on November 25, 1927. On April 18, 1929, he relinquished the position to William C. Dickerman, who was also vice president of A.C.F. Mr. Dickerman's term of office was the longest of any of the presidents, nearly

eleven years, and he then became chairman of the board. On March 1, 1940, he was succeeded by Duncan Fraser, who served until December 27, 1945, when Robert B. McColl, the present head of Alco, was elected. Mr. McColl had been president of the former McIntosh and Seymour Corporation, and he is responsible for much of Alco's aggressiveness in the Diesel locomotive field today.

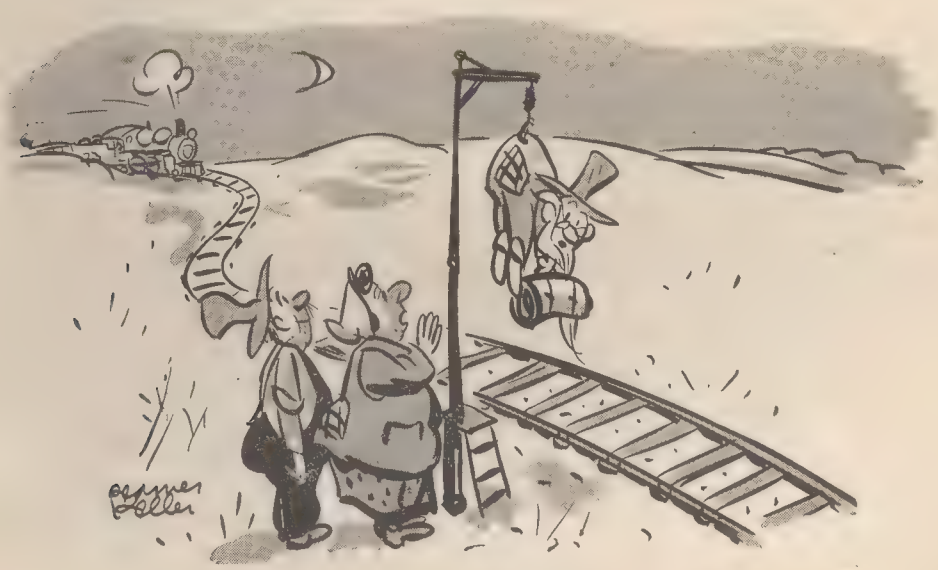
Between 1901 and 1910 Alco built 25,000 engines. Its last big year was 1922, when it turned out 1227. Most of these were built at Schenectady, though the Dunkirk (Brooks), Richmond and Paterson (Cooke) plants were still in operation at that time.

Since then, most of the plants that originally formed the Alco group have been closed and sold, leaving the Schenectady Works as the sole survivor in the United States. All told, the various works belonging to Alco have turned out over 75,000 locomotives, two-thirds of which were constructed since the turn of the century.

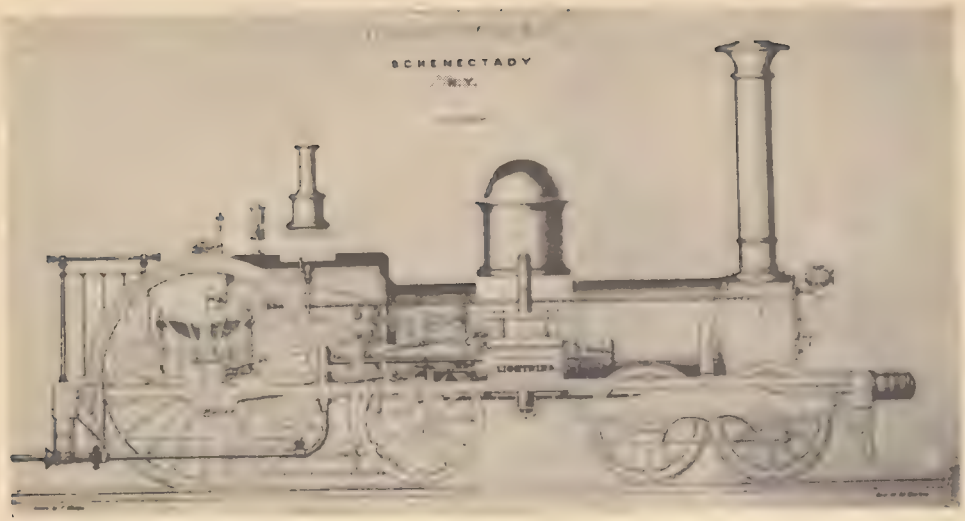
Alco pioneered in the building of Diesel electric locomotives, producing the first one late in 1924. This was a switcher powered by an Ingersoll-Rand engine and equipped with General Electric drive. Railroads soon saw the benefits to be derived from this type of machine and began ordering them in ever increasing numbers. The building of new steam switch engines dwindled to the vanishing point.

To assure a continuous production of Diesel engines after Ingersoll-Rand dropped out of the field, Alco purchased the plant of the McIntosh and Seymour Corp. at Auburn, N.Y., in 1929 and began using these engines in the switchers they constructed.

During the depression of 1930 to 1936, Alco suffered along with the other locomotive builders from a dearth of orders. Then the second World War came along and with it a great upsurge of business. Since the end of that conflict the alleged advantages of Diesel power have influenced American railroads to the extent that steam locomotives orders have practically disappeared. Finally, Alco announced the abandonment of steam engine building at Schenectady Works with the completion of an order for seven 2-8-4 locomotives for the Pittsburgh & Lake Erie. This ending of a century of steam locomotive building occurred on June 17, 1948.



Don't forgit to send us a post card from Aunt Ruthie's


SCHENECTADY
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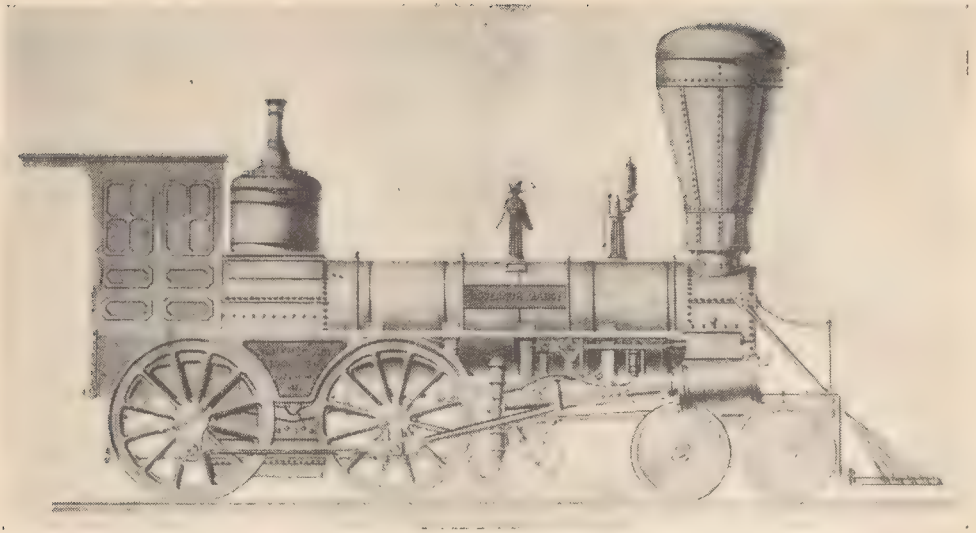
57

ALCO Looks over a Century of Orders

FROM the bicycle-drivered Norris midgets to the 6000-horsepower, multi-unit Diesels, products of the Schenectady Plant of the American Locomotive Company have headended a colorful parade that is the history of railroading itself

At left: First known drawing of a Schenectady locomotive is this beautifully detailed lithograph which appeared in Emil Reuter's ***American Locomotives***, published in 1849-50. *Below:* Newest Alco giant, ready to haul Espee's combined ***Cascade*** and ***Beaver*** from Oakland to Eugene

Courtesy, General Electric Co.

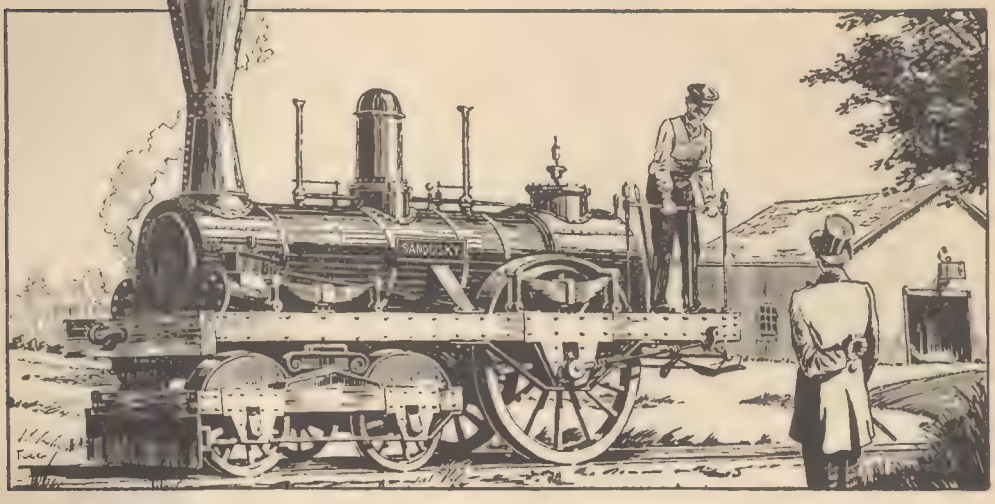


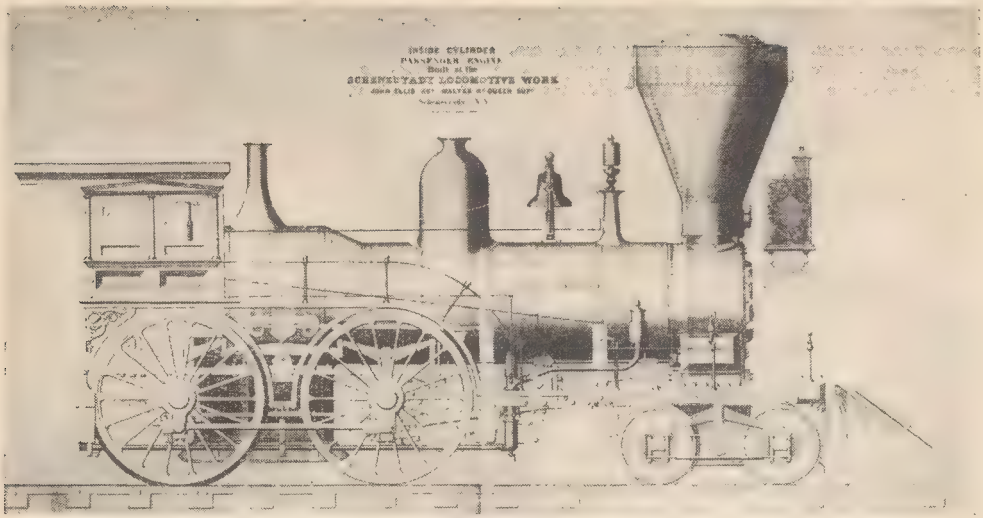
Above: 1851 product of Schenectady Locomotive Works' shop No. 3 was *Governor Marcy*, ordered by the Michigan Southern

At right: Closing year of the Civil War found Schenectady whooping up business with a dramatic double-decker view of the engine works. Four smokeless chimneys indicate an unfortunate slacking off of business which was probably remedied when the two midgets wheeled their new boiler into the erecting shop

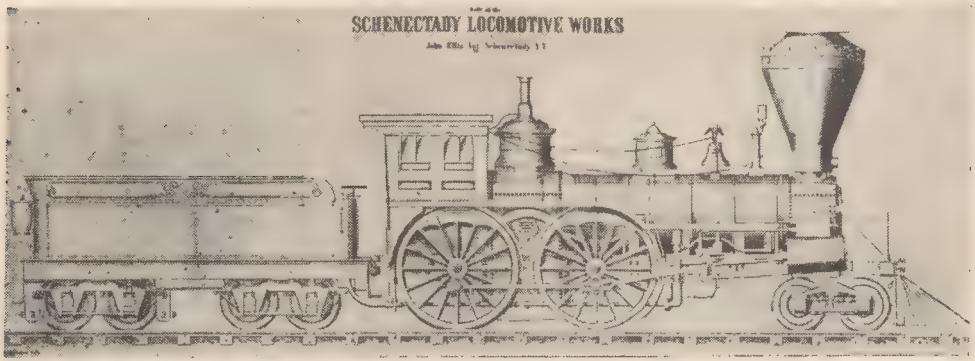
Below: Father of the cross-compound locomotive was Albert J. Pitkin, Schenectady Works Superintendent, who became President of Alco in 1904

Widely publicized as first locomotive to make use of counterbalanced driving wheels (Coleman Sellers & Sons had done this three years earlier) Rogers' 1837 *Sandusky* is sometimes called Alco's first engine, inasmuch as the Paterson plant was acquired by them in 1904

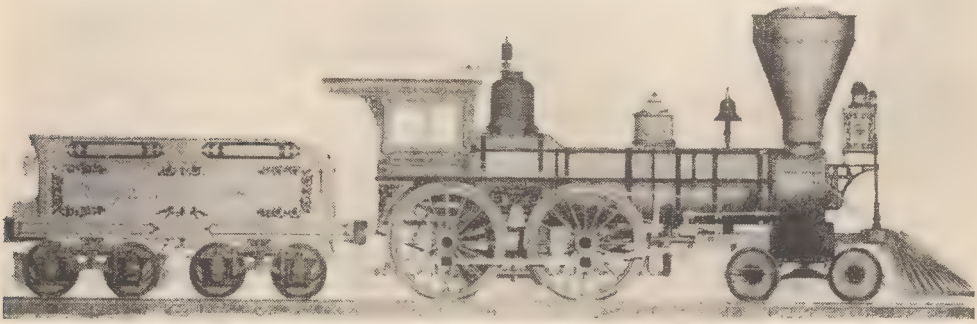




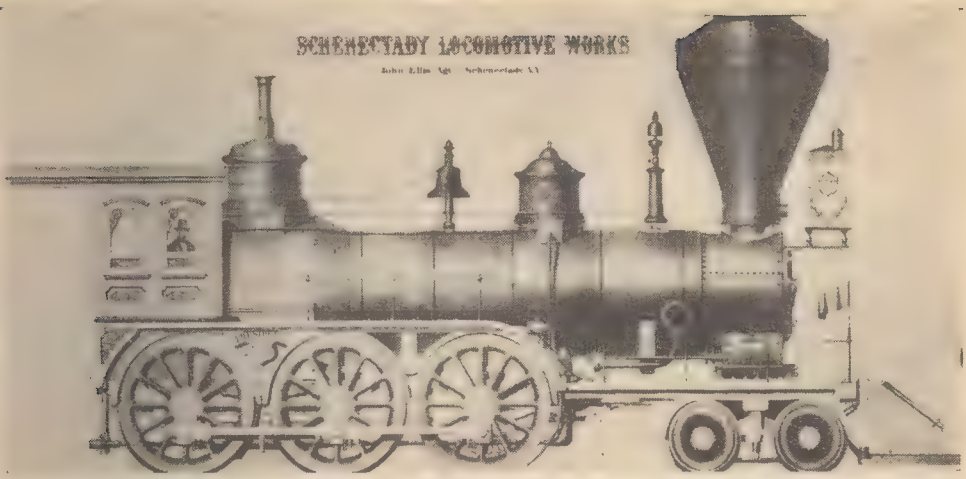
Buffalo & Lake Huron Ry.'s *Anglo-American*, completed in 1853, was an inside-cylinder passenger engine built under the supervision of Walter McQueen



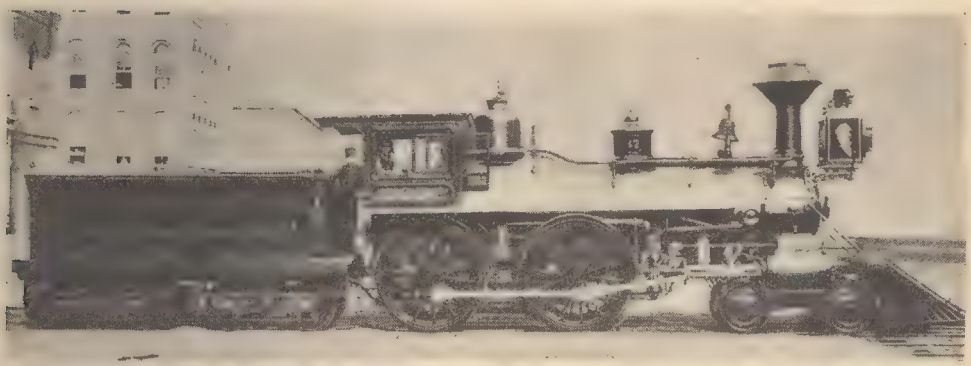
Six-foot-drivered Utica & Schenectady speedster designed by McQueen in the same year. She weighed 24 tons in working order



Singularly handsome eight-wheeler for the Hudson River Railroad, keystone of the Vanderbilt empire. Paint-work reached its zenith in 1860



Little man; big engine. 1855 precursor of the *Mohawk* type was New York Central's *124*, the *President*. She weighed all of 26 tons and needed no smoke deflectors to keep the exhaust above the cab



To the Rensselaer & Saratoga (D&H) went the *Commodore Vanderbilt* in 1871. Portraits of the former steamboat magnate appeared on her headlight sides, executed against a dark background in the best Van Dyke manner

Son Willy had an engine named for him, too, and just in time, for the New York Central resorted to numbers exclusively after receipt of the *600*

Old Maud, designed by James E. Muhlfeld in 1904, to handle heavy tonnage on the B&O's Sand Patch grades, was the forerunner of more than two thousand articulated engines now in service on American railroads

Pacific with a boxcar number. To commemorate construction of 50,000th locomotive, Alco built this experimental passenger job in 1910. Purchasing road, the Erie, quickly removed all traces of New York Central influence

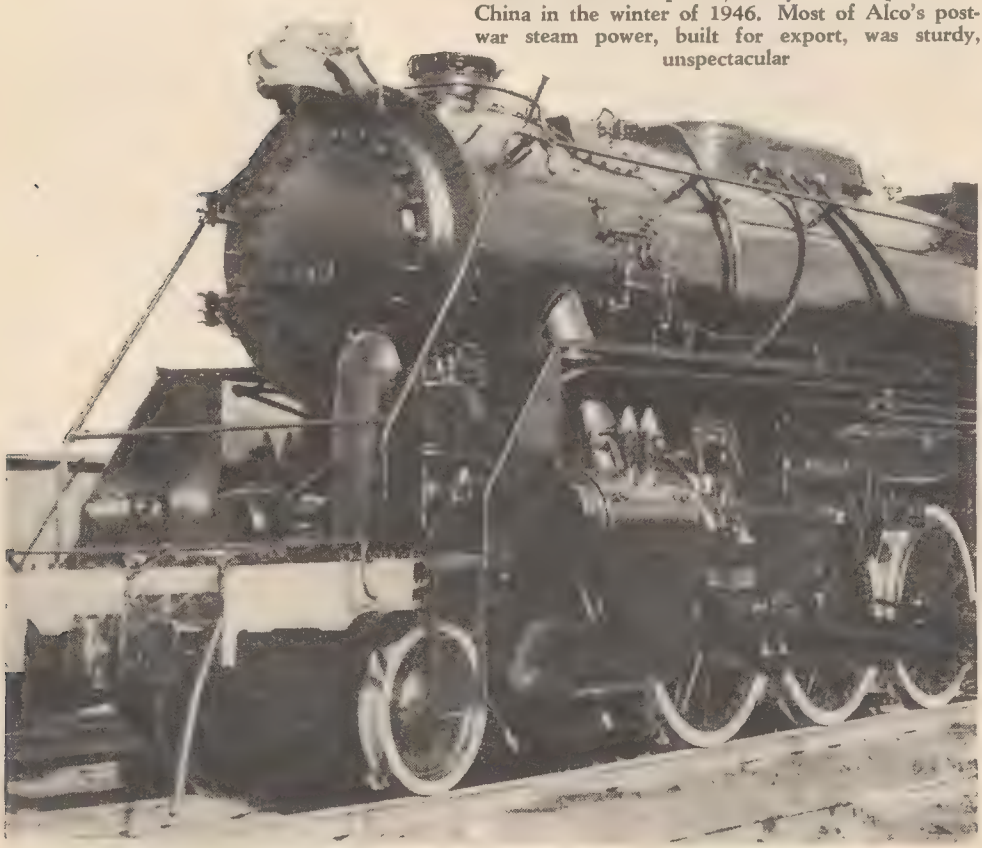
Alco has never ventured far from orthodox design, but the *James Archibald*, one of four high-pressure engines constructed for the Delaware & Hudson, was a notable exception. She was outshopped in 1930

Above: One of the first Atlantics to go into New York Central service was the high-stepping ***2990.*** Pretty as a Gibson Girl, she was a product of 1901. ***Below:*** Five years earlier, New York, New Haven & Hartford wheeled expresses with the ***408,*** in whose design the ***American*** type was fast approaching maximum capacity

Standardization of motive power during United States Railroad Administration era produced light and heavy ***Pacific, Mountain, Mikado*** and ***Mallet*** power. H-6a Class is New York Central's designation for the light ***Mikado***

Wheeling & Lake Erie ***Berkshire***, Bessemer switcher, Diesel shunting engine and ***Hiawatha Atlantic*** were high points in 1937 fan trip to Schenectady

Below: UNRRA power, ready for shipment to China in the winter of 1946. Most of Alco's post-war steam power, built for export, was sturdy, unspectacular



H. L. Kelso photo

About the time Alco began thinking in terms of standardized Diesel production in lieu of custom-built *Big Boys*, UP plunged into freight Dieselization with both feet. Result: 1500-horsepower Schenectady units in canary-yellow and brown livery

Left: Big Boss of the American Locomotive Company is Kilmarnock-born Robert Boyd McColl

Right: Schenectady assembly line, 1948. Choked with 2000- and 1500-horsepower units, the transverse tracks of the erecting shop present a picture of activity unparalleled since 1918-1919. Builder profit, per Diesel engine, is far less than for comparable steam power, but consumer demands being what they are, Alco has re-tooled to meet the challenge with mass-production methods

Below: From subsidiary Montreal Locomotive Works, Ltd., come 2-8-2s for France. The 1209 is shown here, being hoisted aboard a Weehawken, N. J., berthed freighter

Photos on this spread, courtesy American Locomotive Co. Photos not otherwise credited, from the Railroadians of America

Perfidious Gandy

LEANING against the post marked Section Number 60, on the Red River Valley & Northwestern, Kingsnipe McCarthy extracted his watch. His crinkle-cornered eyes studied the small hand while it slowly arched off a minute. Satisfied it was on the hour, he slipped the timepiece back into his frayed vest pocket. "Noon, B'hoys!" he announced sedately.

Instantly, six shiny shovel blades clattered down.

The gandies washed down with cold coffee their dry lump, then remained seated on the handcar, staring moodily at the North Dakota landscape. On a distant dirt road, the lower part of the rig hidden by the lush grain crop, a farmer was driving a horse and buggy. To the trackmen, he appeared as if in a rowboat,

He tossed the hoop back to the platform, an exultant grim on his face

By ARTHUR B. ARMES

riding the crests of billowing wheat. The ripening golden heads rose and fell with a mild breeze.

Old Pop's knobby knuckled fingers fumbled searchingly through the recesses of his striped, blue-patched overalls. "Goldarn it," he muttered to no one in particular, "I had a plug o' eatin' ter-backer somewheres!" Nobody answered him, and suddenly his leathery face lighted up in a gratified smile. The end of one finger probbing a sweaty shirt pocket had touched a hard, ebony object.

He hacked off a piece shaped like an angle bar and the size of a bolt, ceremoniously licked prune-flavored specks from a dull-edged blade and gently, as if it were very valuable, shut the jack knife on its hinge. Then, comfortably resting his humped back against the handcar's empty shovel rack, he relaxed, his jaws moving in contented rumination.

Michael O'Donnell, a beetle-browed, fat-faced young man with a plump nose sticking out saucily like a bulge on a big potato, watched him. Mike's own stubby fingers tamped into his pipe a charge of *Three Brother's Fine Cut*. He lighted the mahogany-colored corn cob and worked to get it drawing to his satisfaction. Abruptly through a cloud of pungent smoke, he exploded with, "Think, I'll git me a wife!"

Another gandy, Paul, sat manufacturing a cigarette. Now, he delayed, for the time being, his operation of giving the ends the finishing twist. His big black eyes glowed and his thin face took on an almost sardonic cast,

"Where th—"

"Dawgone it!" interrupted the boss in a blunt undertone. Now he'd have to make an excuse to get out of hearing before they

started their inane rag chewing. He straightened up, stretched his arms, an expression of bored disgust on his weather-beaten features. "Guess I'll do a little track walkin'." He strode down the center of the right-of-way towards the passing track, as if he meant to inspect the switches.

"Where th' hell you goin' t' git a wife?" Paul resumed on a sneering note. He could talk all day about young women, and how few girls a boomer gandy ever saw or was ever likely to see. The subject was his obsession. "All right, *how* you plan t' git one!" he challenged.

"By mail!" crisply explained Mike, producing from his grease-spotted overall pocket, a crumpled folder entitled *Lonely Hearts*. He pointed the wet mouth-piece of his pipe stem at a photograph on the front page of an attractive looking young woman. "Thot's the gal I'm goin' ter try t' marry." For the benefit of his fellow gandies, he raised his hoarse voice, and slowly spelling out the words with his thick forefinger, read:

"Widder—blonde—un-en-cumb-ered—dee-sires—corres-pond-ence—with a am-bee-tious man with a view to marriage."

A trickle of black juice leaked down from the corner of Pop's wrinkled mouth, intermingling with the rust-tinged stubble on his chin as he cackled out a warning. "Watch out fer them 'ere widders, they're dynamite!"

"Not all of 'em," dissented Paul authoritatively.

"You all talks big words," interjected Hank in a slow drawl, gazing blankly into space. "Un-en-cumbered, wot's it mean?"

"Why, you Okie lanky boob!" yelped Paul, assuming an air of wordly wisdom. "It means, she ain't got any kids, dough or anythin' else!"

"If I was lookin' around fer a ball an' chain, I'd want a blonde with a good-size piece o' jack and then I'd cut out this hard graft of shoveling ballast between ties an' moving from pike to pike," Boomer Jones soliloquized, flicking ash from his cigarette.

"Those kind are no good," Paul noisily argued. "After you're hooked, all you'd hear is, 'Where would you be if it wasn't fer my money, nothin' but a worthless bum!' "

Mike pondered, weighing the two schools of thought; said nothing.

"Gimme that sheet!" Paul extended a hairy paw for the list of Lonely Hearts. "Huh!" he snorted. "Young widow, wants a ambitious guy to tie up to." He added a sarcastic comment, "The way you drag around th' track, Mike, you ain't what I'd call ambitious!"

Old Pop thoughtfully aimed a black stream at a grasshopper on a tie-end. He mirthfully croaked, "Thet'll come after the weddin' bells. Ha, ha, ha!" His sharp dry laugh was like a bark.

A RATTLER came roaring up, drowning out the oldtimer's noise. The drag's long string of swaying boxcars bumped and the wheels rhythmically clicked by over the rail joints. The section crew continued to eye the rear of the caboose as it receded down the track.

All was quiet again and Paul studied the matrimonial line-up. He turned to Mike. "Where'd you git this?"

Mike jerked his sweat-stained, battered felt vaguely north, up the shimmering steel.

"Along there som'ers, found it down in th' grade ditch. Someone musta throwed it offa train."

"Some poor dub on his last trip, before he settles down to be side-tracked fer life," joked Boomer Jones.

"Well," Paul ignored the crack, "that let's you out. T' git next to that dame, you've gotta be a member o' the club."

Mike's brow contracted. "How much will it set me back?"

"Lemme see!" Paul meditated, riffling the two-page sun-yellowed paper. "That information oughta be at the tail end o' th' rag." His eyes settled on a box captioned:

" 'Confidential introduction arranged by letter. Fill in name and address. Enclose $2 and mail to Box 7051, St. Louis, Mo.' "

Paul indicated the ruled blank space.

"There y' are, Mike, fill that in an' don't fergit t' slip in two bucks."

"Jeez!" gasped Pop. "Thet's a lotta money t' put up fer a lottery, a dime ud be ernough."

He paused, then doubtfully shook his head. "Anyway," he amended, "bet'cha it's a fake."

"They ain't all crooks," Paul differed. "I believe it's gen-u-wine."

"Once I sent a five to an outfit in Chi," Hank cut in gloomily. "They was a phoney outfit . . ."

"Think, I'll send in the two bucks an' take a chance," Mike burst out with a decisive air.

"That's the ticket, take a chance, win or lose," grinned Boomer Jones encouragingly.

He took a deep drag at his butt, then exhaled the smoke, and bragged, "Once I put a gold slug on a nag named Redball, liked her moniker an' she was fast. I collected twenty fer one."

Paul sniffed, unimpressed by the revelation.

Boomer Jones' face took on a pained expression. He argued, "It was back at—"

"Soft pedal the bushwah," Pop warned, "Here comes Mac."

McCarthy came up the roadbed in long strides. He stood majestically fingering his Elgin. "Let's go!" he boomed.

The gandies bent stiffly and picked up their shovels.

That evening in his boarding house, Mike filled out the address blank. He inserted a two-dollar bill.

At the end of the week he found an envelope addressed to Michael O'Donnell on the hall-way table. The enclosure read:

"Your application received. You are listed as No. 99 and enrolled as a member. The address of the young lady you desire to contact is Olga Jansen, General Delivery, Minneapolis, Minn. Send your description, age, height, etc. Under separate cover we are forwarding a new edition of *Lonely Hearts.*"

Mike promptly sat down, moistened the tip of a stub of pencil, and composed a letter stating his qualifications for a position as the widow's second husband:

Boarding House.
Dawton, N.D. July 5, 1900.
Deer Olga Jansen:

I am writeing you to let you kunow i rede about you in a paper called *Lonely Harts.* I am thirty years old six feet high, my hair is dark. I am a section hand and I works every day but not on sunday on the RRV&N. Will write more when i heer from you.

Yours truely,
Mike O'Donnell.

He handed the composition to Paul for a check-up.

"D'ya expect ter git an answer to that?" Paul scoffed. "No dame in her right mind ud write to a gandy-dancer she don't know from Adam. Rub out section-stiff an' put in railroadin.' You've gotta make a build-up, git her dreamin' you're somebody on the gravy pay-roll, like a roadmaster or hogger or a con."

Mike sat mute, chewing on the eraser tip of his pencil, his sea-blue eyes staring up pensively as he weighed the words of his adviser.

Paul airily waved a hand like a catcher's mitt. "All is fair in love an' railroadin'. If you wanta make good time in gittin' next to that queen, you've gotta lay it on thick."

He paused and added as an afterthought. "Wassa matter? If you meet her in person, give her a line you've put in a bid fer a roadmaster's job."

Several minutes passed before Paul's convincing logic penetrated Mike's Celtic head, and he proceeded to delete the wording that betrayed his lowly railroader role. The eraser made a smeary blotch on the cheap tablet paper. "Darn it!" he muttered irritably, ripping off the sheet. "Gotta do it all over."

He rested his brawny elbow on the table, his tongue tip protruding, his heavy hand guiding the pencil. He replaced "a section hand," with "at railroading."

THE next day McCarthy gazed at Mike with a frown of wonder. Mike was actually shouldering and carrying tamarack ties alone. He was also humming, "My Wild Irish Rose."

McCarthy shrugged his shoulders. "Th' bhoy is actin' kinda light headed, maybe." But then he mused inwardly. "Th' slob's hittin' th' booze. If he gits too bad, I'll hafta fire him."

To Mike the succeeding three days while he waited for an answer seemed to lapse with painful slowness. On the fourth evening he spotted another envelope on the hall table, addressed in a feminine hand. Feverishly, he tore it open. A strong smell of perfume rose from the pink paper as, like a child spelling out a school primer, he haltingly read:

My Dear Mr. O'Donnell,

It was sweet of you to reply to my advertisement. However, one must be careful in writing to strangers. I would like to know to whom I am corresponding. So, please state what railroad position you hold on the RRV&N.

Affectionately,
Olga Jansen.

P.S. Send Photo.

Mike pored over the note for five minutes, studiously scratching his shock of black tousled hair. Finally, he got the gist of what the writer wanted to convey. Then, for another five minutes, he sat with his pencil poised:

Boarding House.
Dawton, N.D. July 15, 1900.
Deer Olga Jansen:

Got your note, to day. In reply. I'm a straw boss. Am next in line fore a roadmasters job. Pitcher is me, taken when I was much younger looking.

Yours truely.
Michael O'Donnell.

Mike read the message over to himself. " 'Am in line fer roadmaster.' That'll let her know I've got ambition." He chuckled softly, as he sealed the missive. "I carry the keys fer the switches an' tool shanty, so that makes me a straw boss."

Olga's answer came by return mail:

My Dear Mr. O'Donnell,

I'm a soldier's widow and do not understand the slang language of railroadmen. So, I've no idea what the duties of a straw boss are, but I believe you are some kind of a foreman in a high official position. From what I can gather from your homely letters and photo, you must be a nice ambitious young man. Soon, I will be visiting my aunt who lives at Whyle, N.D., up your way and I will make a stopover at Dawton and call on you. However, I am not quite sure when I will arrive in your locality.

Affectionately,
Olga.

Mike tried to surmise the probable cause of the demise of her late spouse. "He musta got hisself kilt down in the Cuba War." His brow knit over the problem presented by the remainder of the letter. He broke out into a cold sweat. "Whee-ee!" He whistled under his breath. "Suppose she comes an' finds me in these ragged overalls! To meet her I oughta have on me store glad rags."

Anxiously, he lived through the next few days. He would have liked to have reported for work wearing his best clothes, but he had sense enough to realize that lifting ties was no way to preserve his Sunday suit. All he could do was hope that Olga would come on Sunday.

Unfortunately, it was on a Tuesday that Roy Moore, the young op and station agent at Dawson, observed one passenger, a young woman in a peekaboo waist, unload from the 2 p.m. varnish. He stared and his heart began pounding. She was of medium height, with a full rounded figure, and a straw sailor hat topped her blonde pompadour.

"Who is she?" the brass-pounder wondered. He wished she would enter the station and speak to him so he could get to know her.

At that moment Olga turned, facing through the glass, and gave him a shy pleasant glance, then directed her gaze up and down the main iron. As if bewildered by the strange surroundings, she stood hesitant, then sauntered into the station. "Could you tell me where the straw boss lives?" she queried. Her smile revealed pearly white teeth.

"Straw boss!" There was no railroad employe of that classification in the vicinity. He thought she was joking in an attempt to make his acquaintance, and racked his brains for a suitable wisecrack in answer.

Olga's puzzled expression and innocent blue eyes warned him she was serious.

Roy was nonplussed. But, come to think of it, there was a straw boss at Bassetlaw, forty miles north, where an extra gang was at work surfacing the roadbed for heavy grain traffic in the fall. To help handle the large crew of drifters, the head foreman had an assistant or straw boss. Roy paused before he spoke, wondering what her mission could be. It was not considered proper for young ladies to visit the roughneck occupants of bunk cars.

Then his features lit up. "I guess you mean the section foreman?"

"Where is his residence, could you tell me?"

"Why, certainly." Courteously motioning for her to follow, he led the way outside to the end of the station platform, and pointed to a nearby building. "It's that yellow-painted house."

"Oh, is that it?" she cooed. "Thank you."

Roy's hand automatically tipped his derby hat. "You're welcome."

For a minute, he remained motionless, gazing at her retreating figure as she tripped lightly down the track shoulder path. "She may be a relative of the McCarthys," sighed the op, as he swung round and hurried back to the depot office. The ticker was thundering from Whyle, calling for the Dawton operator's attention. His nimble fingers expertly tapped the instrument key in answer. He paused and listened, then hastily reached for flimsies to dash off the train order . . .

OLGA approached the section house, dubiously eyeing three children who were playing in the fenced-in front yard. She timidly rapped the front door panel. While she waited, the youngsters sauntered up, and stood popeyed with childish curiosity, squinting up at the visitor.

The sun-blistered door swung back, revealing a stern-faced, middle-aged woman, her stocky frame encased in a freshly laundered gingham housedress. Her eyes, rounded in an astonished stare, roved over the stylish clothes of the stranger.

"Does Michael O'Donnell live here?" quavered Olga.

The woman shook her head impatiently. "No! Me husbind's name is McCarthy."

Olga pursed her lips in vexation. "That's strange." She reflected for a moment, then added, "Mr. O'Donnell wrote an' told me he lived here in the boarding house."

"This isn't a boardin' 'ouse, this place is a section 'ouse," corrected Mrs. McCarthy, patting her coiled brown hair to occupy her restless hands.

Olga fidgeted through her handbag, extracted and displayed a photo. "This is the gentleman I wish to find."

Mrs. McCarthy's forehead creased as she intently examined the picture; abruptly her features lit up in recognition. "Why, that's Mike," she exclaimed. "I've niver seem him before all dolled up like that, shaved, his hair combed an' parted an' a white, high collar an' tie on!"

She paused for an instant, her thin lips taking on a cynical curl, and then supplemented, "Even in all that high-toned getup he's no gintleman."

"Who is he?" Olga inquired fervently.

"Jist one o' me husbind's section 'ands!"

"Section hand!" repeated Olga with a

gasp. "He stated he was some kind of a foreman."

Mrs. McCarthy shrugged her shoulders, folded her arms across her bosom and stood silent, expecting another question.

But Olga had heard enough. Whispering a "Thank you," she wheeled around on her high heels and walked dejectedly back to the depot. She went straight to the ticket window and inquired in a quivering voice, "What time will there be a train south?"

Roy's eyebrows lifted in surprise at her quick return, but he was used to the vagaries of the traveling public. "Number four is three hours late, it'll be here about eight tonight," he told her. His voice was soft and musical to her ears.

Her fingers drummed nervously on the counter as she gazed up at him. She liked his frank hazel eyes, framed in a clean-cut countenance. She was suddenly sure that he was a gentleman who would respect a confidence. Her eyes misted. "Why are men such triflers?"

He moved to her side in the waiting room. "What is troubling you?" he inquired almost tenderly.

Between suppressed sobs, she gave a short summary of her dealings by mail with a prevaricator named Michael O'Donnell. Roy was a bachelor and, consequently, had not lost his sense of gallantry. He started an eloquent flow of soothing phrases, then abruptly trailed off at the sound of a long-drawn wail from the northbound freight whistling by the milepost.

"I'll hafta get outside for a few minutes," he said, and unthinkingly lapsed into rail lingo,"Got to give 'em a hand on." Picking up the two train-order hoops, he hurried outside, took a position at the platform edge, and gave an upward glance to see if the color was correct. Then he rigidly waited.

The fast freight rolled up with a roar, the hog's exhaust pounding and hissing steam. The hoghead sat, resting his elbow on the window frame, his eyes steadily focussed up ahead on the sunlit gleaming steel of the main stem.

On the threshold of the waiting room, Olga suddenly thrilled as she observed the tallowpot, standing tense on the cab deck. His left hand gripped the grab iron, the right arm crooked to catch the hoop. When the hoop encircled it, he deftly snatched off the train order, tossed the hoop back out to the platform. An exultant grin showing through the coal dust smudging his youthful features, he waved a gauntleted hand to the op, and Roy returned the friendly gesture.

The hotshot rattled and banged by at a slow clip. Atop the crummy, the con grasped the doghouse handhold, his gaze lowered intently to the end man on the rear step. The instant the hoop was caught, the con's hand shot above his head, waved to the head-end. The throttle artist acknowledged the highball with two short, high-pitched whistle blasts, and gave her the gun. Immediately, she hit the ball.

Roy watched the caboose rear trucks fade away down the track in a vortex of swirling dust. All was quiet again while the acrid smell of coal smoke lifted. Roy was aware of a fragant odor of lilac. He smilingly faced Olga.

"Do you play that exciting game of 'hand on' often?" she questioned in an amused tone of voice.

Roy raised his eyes skyward beseechingly. "Gee!" He groaned inwardly. "Beautiful, but dumb on railroading." Then his gaze dropped to her clear-skinned countenance. Her eyelashes were fluttering in expectation of an answer to her joke—or what she thought was a joke.

Roy gave a hopeless shrug. He conjectured that "An explanation of how a 'hand-on' speeded up train traffic was too abstruse to be outlined concisely," and deftly switched the subject of conversation to one more in keeping with her interests.

When the night shift brass-pounder came on duty, Roy was exchanging lively small talk with Olga. The second trick op had the impression that she was Roy's long lost sister. The two left together for supper at the Dawton Hotel, and did not return to the station until five minutes before Number 4 was scheduled to arrive.

"Roy sure is a fast worker," the station lounger quipped

The night trick lightning slinger immediately reversed his previous deduction on their relationship. Yeah . . . they acted too romantically attached to be brother and sister.

MIKE trudged up the station platform, vaulted up on a baggage truck and seated himself beside a moon-visaged town roustabout, an habitual station lounger.

"Roy sure is a fast worker," quipped the depot habitué, nodding toward the interior where Roy and Olga sat close together on a bench.

"I've gotta order in fer one jist like her," grinned Mike. "She sure is a looker —blonde 'n always laughing."

His side-kick leered knowingly. "Yeah, I seen her. . . ."

At the far-off rumble of Number 4, the two clods ceased trading witticisms on the admirable points of female pulchritude. They sat hushed, listening to the intermittent *chug-chug-chug* becoming louder and louder, their eyes fixed in a stare down the right-of-way. The locomotive headlight beam reflecting on the rails gave them a silver-like polish.

The roustabout turned his expressionless, freckled visage to Mike. "She's comin'."

The hoghead confirmed that remark with a long-drawn-out screech of his whistle. In a few moments, the train pounded in. The brake shoes gave a dull metallic clang, and snapped tight against the coach wheels, jerking them to a smooth stop.

Roy and Olga walked arm in arm through the station door. In the dim light, they glanced at nobody. Mike wistfully watched Roy assist his lady friend up the coach step.

She turned, waved an affectionate parting hand at her escort.

The con called, "All aboo-o-ard." Placing a foot on the vestibule step, he simultaneously gave the head-end the highball. The varnish glided slowly on. The tail lights vanished from Mike's sight in the gloom of the night. Silently disregarding the presence of his companion, he leaped down from the baggage truck. As he shuffled back to his boarding house, his thoughts were on the girl he expected to arrive in Dawton soon, Mrs. Olga Jansen.

At five minutes to seven by the depot clock next morning, Section Boss McCarthy hustled into the station for his daily train schedule. He exchanged the usual morning greeting with the op. "By the way, Mac," began Roy, "did your wife mention she had a caller at your house yesterday afternoon?"

"Faith! Yes!" responded McCarthy in a tone of perplexity. "We've both bin tryin' ter figger out what Mike has bin up to."

Roy smiled. "He's been writing love letters an' mis-stating the facts."

McCarthy's eyes narrowed, his Hibernian temper beginning to boil. "Th' dom' scalawag—!"

"Calm yourself, oldtimer," Roy cautioned. "Too much steam is bad for your blood pressure."

McCarthy regained his composure. "And shure me bhoy, if ye ain't right."

"Lissen!" Roy lowered his voice, and placed a silencing forefinger to his lips. "Keep what you know under your hat: me an' that young lady are close friends from now on."

An understanding grin came to rest on McCarthy's face. Then, looking redder than ever he grabbed up the train schedule and waved a departing hand. "Wish yez luck!"

Time flowed firmly on while Mike, the poor chump, waited for Olga Jansen to appear and then ceased to hope. At the Dawton Hotel, letters in a feminine script were regularly filed for Mr. Roy Moore, who answered them in a flowing op fist which attested them grammatically perfect. At the end of three weeks, Roy wired the super, "Send relief telegrapher. Going to Minneapolis to get married." The brass recalled Roy's service letters, showing he had tried out working conditions from the Atlantic Seaboard to the Southern Pacific. Yes, the brass thought, he well recognized the need for the stabilizing influence of a wife for the rambling op. By return mail came the reply, "Enclosed a single and a return pass for two. Congratulations."

THAT same day on the roadbed, Pop temporarily ceased his interminable jig on his shovel, lazily withdrew the blade from the gravel at the tie edge, rested his freckled paw on the handle, and peered furtively around for McCarthy. The boss was several rail lengths beyond the sound of his voice and in deep thought over some recently installed ties.

"Say, Mike!" Pop lifted his voice cautiously. "How'd ya make out with thet widder?"

Mike shrugged. "I niver seed thot gal, or heered from her agin."

"I tole yuh thet Lonely Heart set-up wuz a fake," Pop reminded his glum-faced partner. Then, like automatons, the two gandies paced up to another tie. Mike uplifted his brogan and savagely rammed his shovel blade deep into the ballast. Opinion on Section Number 60 had been formed and was never to be altered: matrimonial bureaus were a fraud.

Photos from J. M. Jones, 1318 6th St., Neptune, N. J.

Early run of the *Yellow Jacket*, her yellow varnished coaches and green, brass-bound engine still new and flossy in 1898

The Yellow Jacket

By WM. G. WESTPHAL

SOME TIME in the middle 1880s the Pennsylvania Railroad built a trestle from the mainland to Long Beach Island, on northern tip of which stands the famous Barnegat Light. Train service to Barnegat City at the upper end of the island, Beach Haven near the lower end, and to points between the two, left the island at Barnegat City Junction about midway between the extremities of the island. Connections were made on the mainland at Manahawken with the Tuckerton Railroad, which in turn made connections at Whitings with the Pennsylvania Railroad and the Central Railroad of New Jersey for Philadelphia, New York and other outside points.*

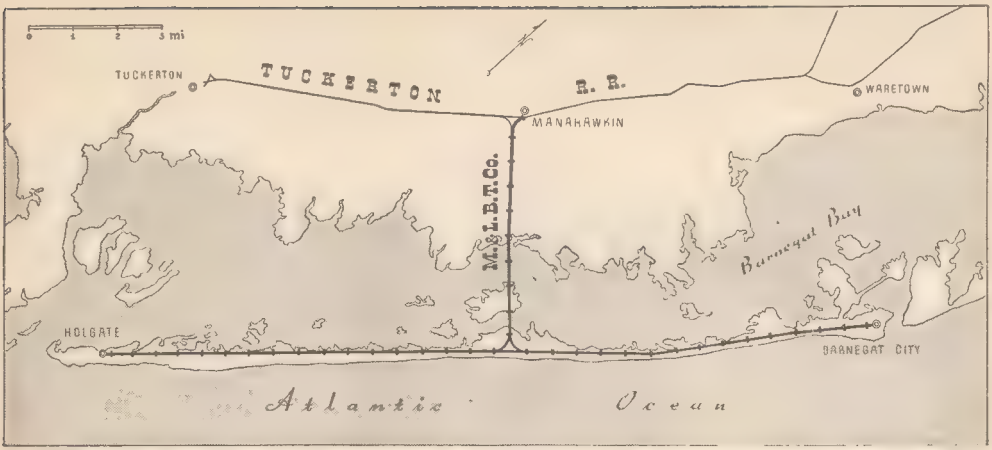
After a few years of operation, the cost of maintenance, especially in winter months when the traffic was lightest, was considered too heavy and abandonment was threatened. Property owners on the island, not wishing to see their holdings drop in value from loss of railroad service, organized a company, calling it the Manahawken & Long Beach Transportation Company, to keep the trains running.

The *Yellow Jacket* was purchased and arrived on the scene, probably several years before the turn of the century, bright in its new paint and decorated with small flags for the gala opening of the new service. The little train consisted of a Forney type engine, Number 1, named the *Harvey Cedars,* and three open platform coaches, one of which was a combination baggage-&-coach. The engine cab and tender were dark green, trimmed and lettered in gold, the boiler jacket was bound with brass and the hand rails were of the same material. The coaches were light yellow, varnished, and lettered in black. Seats in the coaches ran lengthwise and were covered with a carpet-like material, and lighting was with kerosene.

Business must have increased, or hopes were high, because a second engine, Number 2, but not named, a 4-4-0 from the Central Vermont Railroad, was added. Then misfortune struck, in the form of fire, burning the enginehouse at Barnegat City, destroying two of the coaches and damaging the little *Harvey Cedars*. But the sturdy little engine was repaired and returned to service.

It was probably after the fire that a yellow, box-like baggage car, built at the Pavonia Shops in Camden, was added to

** Predecessor railroads for PRR and CRR of NJ respectively were, Camden & Burlington and Raritan & Delaware Bay.*



Old maps showed Barnegat City Junction and Peahala Club House (now Ship Bottom-Beach Arlington and Peahala respectively) midway between Barnegat City and Beach Haven (see Holgate above)

the roster. The list of rolling stock also included two flat cars. A steam dummy, also yellow in color, ran between Barnegat City and Barnegat City Junction for at least a part of the period of operation of the Manahawken & Long Beach Transportation Company.

As all things must come to an end, so, after a time, ended the Manahawken & Long Beach Transportation Company. Down to one locomotive, probably the little *Harvey Cedars,* the company was forced to send her up to the shops for repairs. The boiler inspectors, as a safety measure, reduced her steam pressure so low that she would pull only one car. Since two were required, the Manahawken & Long Beach Transportation Company passed into oblivion. Train service was continued by the Tuckerton Railroad, probably jointly with the Pennsylvania Railroad.

Suppose, during the latter days of the *Yellow Jacket's* service, you had occasion to visit Beach Haven on a Tuesday in wintertime. The day of the week is a factor, as you will discover before you reach your destination.

You travel from your home, in Philadelphia, perhaps, by a streetcar, across the Delaware River on a ferryboat, a sidewheeler, no doubt, and board a train of the Pennsylvania Railroad in the train shed in Camden. Eventually, you are deposited on the platform at Whitings,

M&LBT Co.'s Number 2 in the tall grass outside Barnegat City engine house in 1904. When this 4-4-0 was purchased, business was good. Later, property owners kept the trains running

where you climb aboard the open-end coach of the Tuckerton Railroad and are wafted to Manahawken. At this point you patiently change cars again, this time changing colors also. You get into a little yellow coach of the *Yellow Jacket,* taking an approving sniff of salt air as you do so. This is the last lap of the down trip and you are feeling well satisfied as the little train rumbles over the trestle. The chime whistle lulls you into distant thoughts, and the blue bay sparkles in the winter sunlight.

After leaving Barnegat City Junction for Beach Haven—at least that's what you think—you rouse from your reveries and glance out the window to see if the ocean is rough today and find yourself looking, instead, across the bay to the mainland. You suddenly realize that you are being taken up to Barnegat City instead of down to Beach Haven, and rush to the conductor protesting loudly and waving your return ticket as proof of the wrong being done to you.

"Why didn't you come yesterday?" he asks.

"It snowed yesterday and besides—"

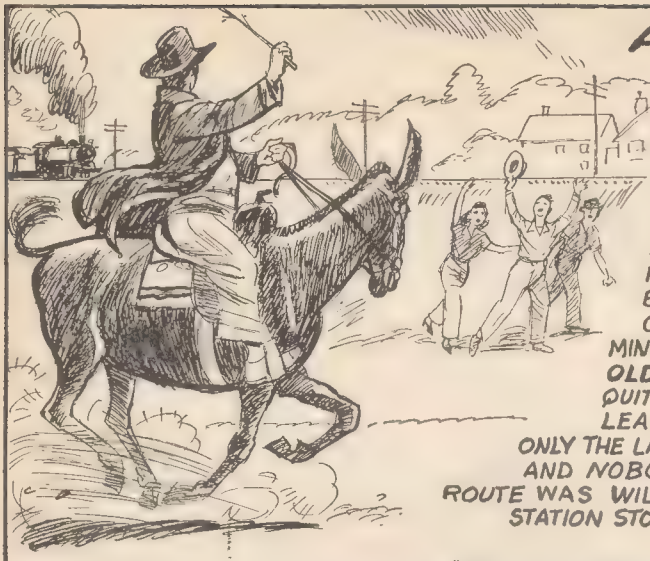
"Or wait until tomorrow?" he interrupts, and then walks away.

This sort of conversation isn't getting you anywhere so you drop to a seat, realizing, as the truth dawns on you, that you have made a fool of yourself (which isn't too serious a matter, since you may be the only passenger at this time of year). Now you recall that you heard somewhere, and forgot it, that the Manahawken & Long Beach Transportation Company has a new winter schedule. In order to cut down expenses, the dummy isn't running. The *Yellow Jacket* on Mondays, Wednesdays and Fridays now goes to Beach Haven first and then back again fifteen miles through the Junction to Barnegat City. On Tuesdays, Thursdays and Saturdays it goes to Barnegat City before going down to Beach Haven. This being Tuesday, you settle yourself to go up to Barnegat City and then all the way back to Beach Haven, where you arrive somewhat later than anticipated. If time is a factor, you suffer its loss in silence and resolve to take steps to improve your memory. You may resolve, also, to stay away from the seashore in wintertime after this.

Yellow Jacket **Number 1, the *Harvey Cedars*, on the leg of the Y at Manahawken. That's Engineer Charles Marshall on the running board and Fireman George M. Crane in the doorway. Time: 1901**

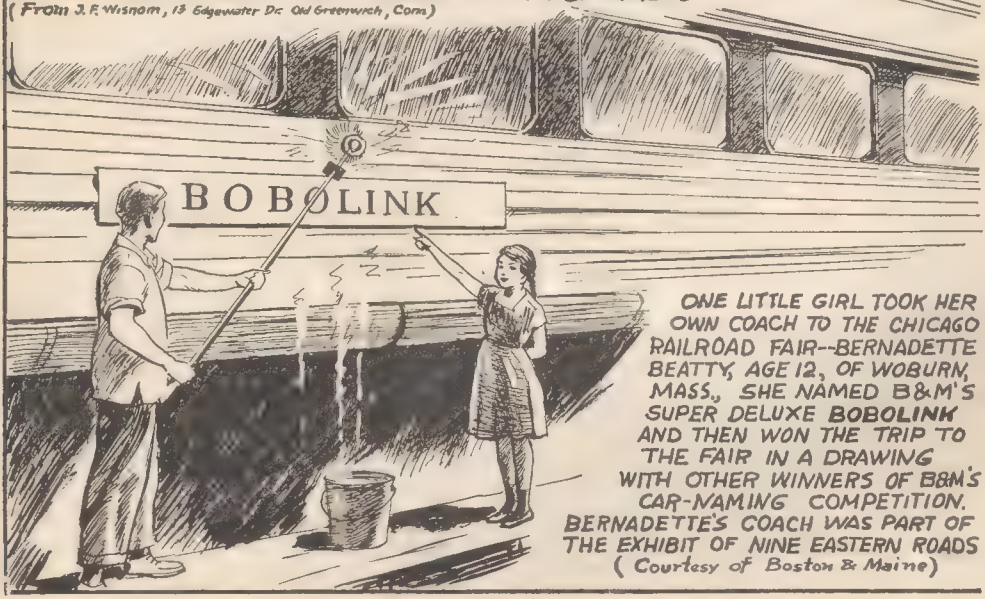
ALONG THE IRON PIKE

by JOE EASLEY

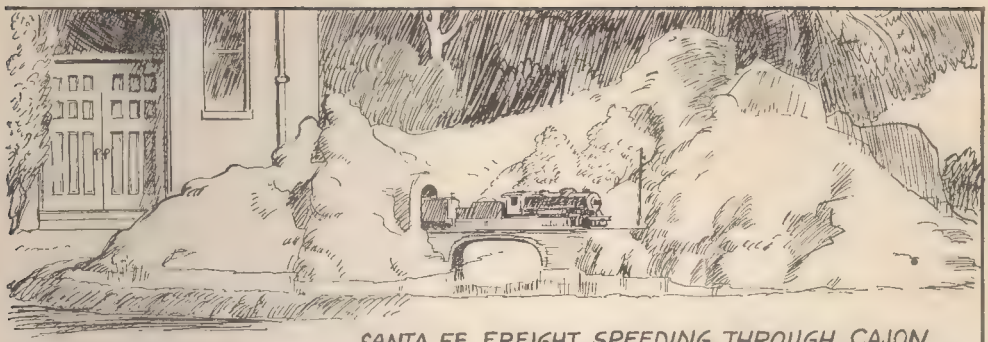


THE WINNAH, GENTS, IN A RACE BETWEEN A MULE AND THE ILLINOIS CENTRAL, IS A FANCY HAY-BURNER CALLED **NATURE BOY** WHO PURPORTEDLY DID 39 MILES BETWEEN CLEVELAND AND GREENVILLE, MISS., IN THREE MINUTES LESS TIME THAN IC'S **OLD RELUCTANT.** OFFICIALS QUIT WORRYING WHEN THEY LEARNED THE MULE HAD RUN ONLY THE LAST TWO MILES OF THE RACE AND NOBODY ALONG THE TRAIN'S ROUTE WAS WILLING TO DROP A SINGLE STATION STOP (From E.L. Masengill, P.O. Box 64, Bulls Gap, Tenn.)

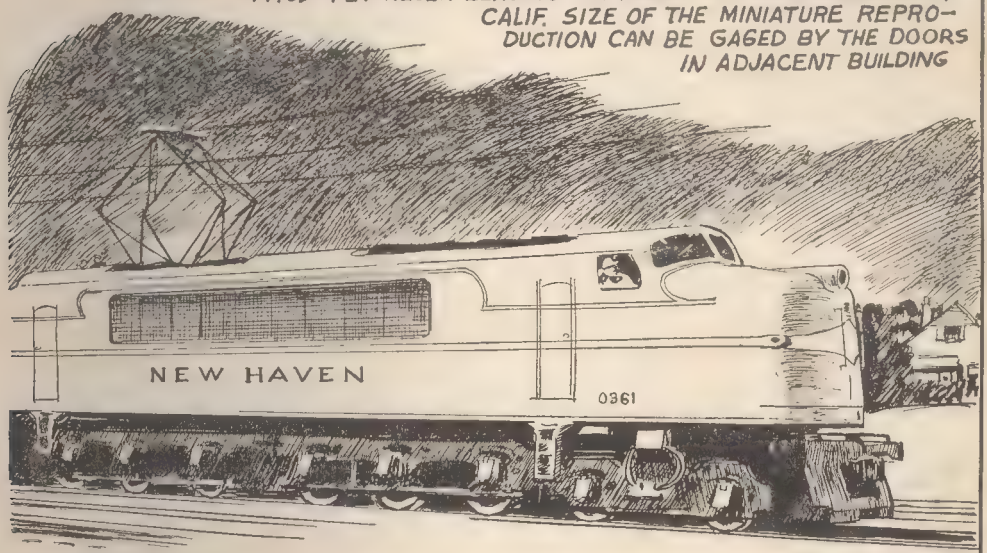
TWO ELECTRIC LOCOMOTIVES HAULING COMMUTER TRAINS 348 AND 158 NEAR RYE AND PORT CHESTER N.Y., WERE DISABLED BY LIGHTNING LAST JULY 5TH. SAFETY DEVICES PREVENTED INJURY TO PASSENGERS WHO HAD NOT EVEN BEEN STARTLED WHEN NATURAL ELECTRICITY WRECKED TRANSFORMERS (From J.F. Wisnom, 13 Edgewater Dr. Old Greenwich, Conn.)



ONE LITTLE GIRL TOOK HER OWN COACH TO THE CHICAGO RAILROAD FAIR--BERNADETTE BEATTY, AGE 12, OF WOBURN, MASS., SHE NAMED B&M'S SUPER DELUXE **BOBOLINK** AND THEN WON THE TRIP TO THE FAIR IN A DRAWING WITH OTHER WINNERS OF B&M'S CAR-NAMING COMPETITION. BERNADETTE'S COACH WAS PART OF THE EXHIBIT OF NINE EASTERN ROADS (Courtesy of Boston & Maine)



SANTA FE FREIGHT SPEEDING THROUGH CAJON PASS YET NEVER LEAVING THE YARDS AT SAN BERNARDINO, CALIF. SIZE OF THE MINIATURE REPRODUCTION CAN BE GAGED BY THE DOORS IN ADJACENT BUILDING



DETROITER WILLIAM W. CRAPO CAN STOP ANY GRAND TRUNK PASSENGER RUNNING THROUGH HIS 1,000-ACRE FARM. GREAT-GRANDSON OF A PERE MARQUETTE FOUNDER AND SON OF A FORMER MARQUETTE DIRECTOR, CRAPO'S UNIQUE PRIVILEGES IN RAIL CIRCLES DATE FROM 1874 WHEN THE DEAL WAS MADE IN ORDER TO GAIN RIGHT-OF-WAY FOR THE OLD CHICAGO & NORTHEASTERN/ From Bruce S. Lane, 1315 Vassar Drive, Kalamazoo 27, Mich

Light of the Lantern

Air Distribution

IT'S a long, winding trail, sometimes a mile in length, that compressed air takes when it leaves the discharge valves of the pump. Westinghouse, in his wildest dreams, could never have anticipated the complicated functioning of

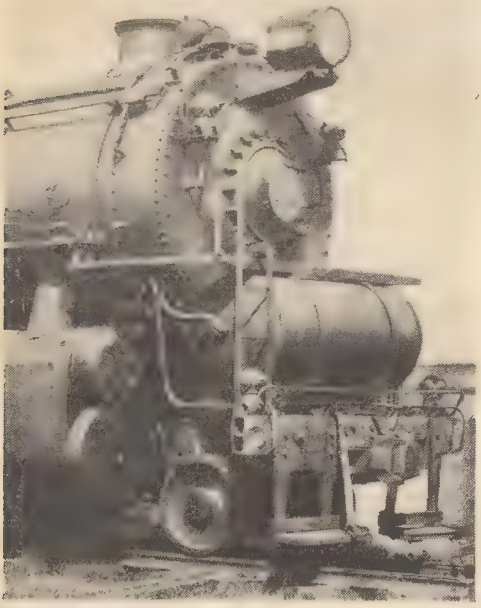


Photo by the late Harry H. Schodde

Many PRR locomotives carry their main reservoirs either transversely or in frame-parallel pairs, above the pilot. Large diameter drums, like those on this 2-10-2, offer less cooling surface area than those of smaller diameter

the present-day train line, as the gas follows an intricate course through pipes and valves and cylinders and hoses to the rear angle cock of the buggy.

In preceding articles we have pointed out that air cannot be forced back into the train line under pressure just as it comes from the atmosphere. First it must be conditioned and then the correct pressure must be properly maintained, regardless of leakages or other defects in equipment.

When the air leaves the pistons and valves of the high pressure cylinder it contains considerable moisture, and the temperature is far too high for practical handling. To bring about the proper "seasoning" it must pass through an aftercooler or long radiating pipes, in either of which the temperature is lowered and the moisture precipitated or "wrung out" in the manner of the modern laundry. From there it flows on to the main reservoir.

These heavy duty steel drums are mainly storage tanks, where the air pressure is built up prior to being distributed throughout the braking systems of the engine and cars. They also serve to trap dirt and act as catch basins for the water that is wrung out as the air temperature drops. Generally they are placed either under the running boards or near the top of the boiler just ahead of the cab, although a few roads make installations transversely on the pilot, just ahead of the smokebox front, or directly back of the coal compartment on the tender. In all cases, however, accessibility is important, for rules demand an annual hydrostatic test of twenty-five percent above working pressure, in addition to which they must be removed at least once every eighteen months and hammer-tested to locate soft spots or other defects which might cause failures or explosions.

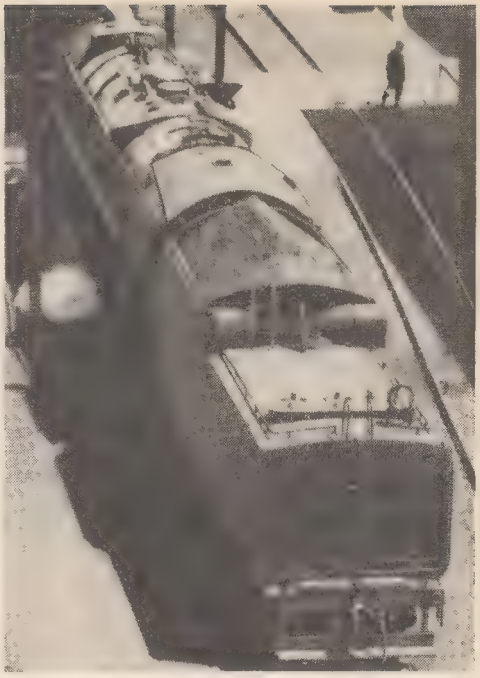
The capacities of main reservoirs vary greatly to meet service demands and road characteristics. On passenger locomotives the figure is never lower than 20,000 cubic feet, while 40,000 is minimum for freight hogs. In the latter service, however, long trains and heavy grades may up the demand to 90,000 cubic feet.

Although some carriers use drums of large diameter, the best results are obtained by making the tanks long and slender, a form which provides greater radiating surfaces and a corresponding increase in the amount of moisture which may be condensed and drawn off during a given period of time. The moisture is detrimental not so much because it rusts pipes and iron as for its effect upon the action of triple valves, particularly during cold weather when ice forms on the valve seats, preventing the free movement of working parts.

Trainmen know what this means. A triple which goes into emergency position when it is not desired is a "kicker" in their language. Such action causes other triples to follow suit, bringing the train to a sudden stop. Having lost control of the braking system the engineer can only brace his feet and wait for a break-in-two or a yanked drawbar. Back in the buggy the crew runs for cover. If the kicker is on the hind end, with the slack bunched, there is no telling what will happen.

On the other side of the picture, a runaway on a mountain grade can often be attributed to a hose freezing solid, which prevents air from flowing back through the cars. This process of plugging is a slow one, making it the more dangerous for the hogger who, feeling certain that his brake is functioning well, lets his train roll.

Conditions of the kind just outlined make it mandatory that all moisture be removed before the air is distributed to the braking system.

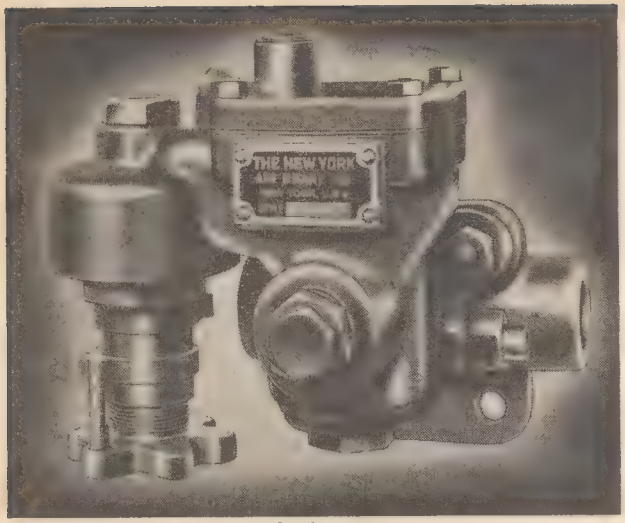


Norfolk & Western locates main reservoirs beneath the sloping back-sheets of its tender bunkers. Other roads vexed by large-diameter boilers place the long cylinders above the firebox

A FEW years back, before the adoption of the cross-compound pump, maximum main-reservoir pressures were set at 90 pounds for freight service and 110 pounds for passenger work. Today this standard still prevails on some roads but it has been general practice to up the maximum to around 140 pounds. This provides a quicker rate of recharge but there are limits to any further increase, because pressure rises bring correspondingly higher temperature. This spells ruin to packings and valves and a shorter life for the pump.

As we have said before, it is not feasible to shoot air, at main-reservoir pressure, back through the train. Hence the need for some sort of reducing valve and this is where the *feed valve* enters the conditioning process. Its function is to drop the main-reservoir pressure so that it may be readily handled through the hoses, auxiliary reservoirs and brake cylinders. Once again the trend has been to increase train-line pressures somewhat during recent years; from the original 70 pounds to 80 pounds in the case of freight trains, and to 90 for passenger service. The resulting differentials between main-reservoir and train-line pressures produces the best results achieved to date.

Let's have a look at the mechanism which determines this drop in pressure.



Courtesy New York Air Brake Co.

At left: **New York Air Brake Company's F-4-B feed valve, mounted on its pipe bracket. This husky midget works with furious perfection**

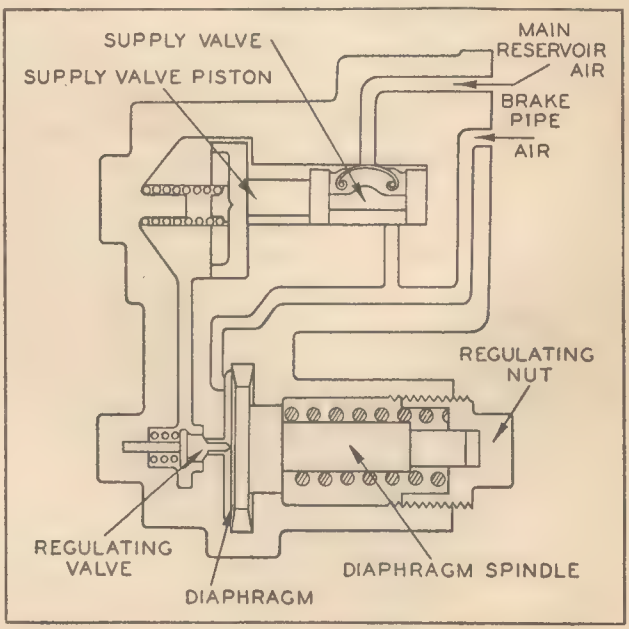
Bottom of page: **Diagram of feed valve, showing normal position, which is *closed***

It is a small device; one which can be held easily in one hand. Despite its unimpressive size and the fact that it is forever on the job replacing the pressure losses that are inevitable because no train line can be kept perfectly tight, the feed valve demands a minimum of attention and rarely gets out of order

Except when the brake valve is placed in *full release* position, causing main-reservoir air to flow to the brake pipe, all of the air that flows back through the train must pass through the feed valve. This is hard to believe but it is true, for the small valve works with furious perfection. On those rare moments when it gets out of order the engineer knows it immediately by the equalizing of the air gage needles or the dragging of his brakes. A new or repaired valve must then be applied, for a long train cannot be handled with safety while the feed valve is defective.

Its operation is based upon the main principle of most air devices, namely: a strong pressure working against a weaker one. The mechanism is composed of two parts known as the supply and regulating sections. In the former we find the slide, or supply valve, attached to the actuating piston. In the latter are the diaphragm spindle and regulating valve. Various springs, as shown in the drawings, keep the valves in their desired location.

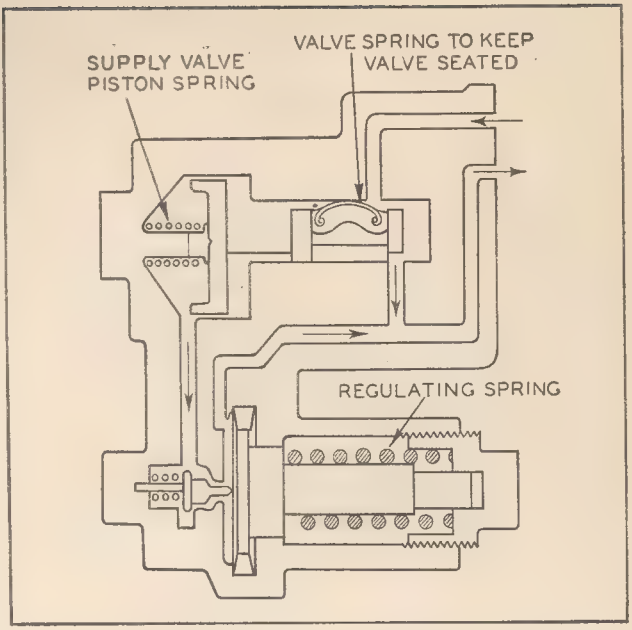
The normal position of the feed valve is *closed,* and only when the brake pipe calls for air does it open the ports, admitting a supply. Main-reservoir air enters



at the upper aperture, flows down around the supply valve and into the supply valve piston chamber. Since the piston is loosely fitted the air passes on through a cavity to the regulating valve. Here it is trapped and there is no further movement while the valve is closed or the pressure in the brake pipe remains up to that at which the regulating nut compresses the spring.

When the brake has been applied by a reduction in brake pipe pressure, and the handle of the brake valve is returned to running position, the system must be recharged. Now the feed valve goes into *open* position. The regulating portion acts first. Lowering of brake pipe air on the left side of the diaphragm causes the spring to force the spindle to left, unseating the regulating valve. This allows the air surrounding it to flow to the brake pipe, causing a reduction. Now air coming in from the main reservoir has movement so it forces the supply valve piston against the spring, forcing it to the left. This, in turn, actuates the supply valve, opening the port which allows main-reservoir air to flow directly to the brake pipe. The air which constitutes the main source of supply comes through the large port uncovered by the slide valve, while that which flows by the regulating valve is very slight, and solely for the purpose of keeping the upper piston to the left when the pressures are unequalized.

As the pressure in the brake pipe rises, it also builds up on the left surface of the diaphragm until it slightly exceeds the regulating spring pressure. As the coil is compressed and the diaphragm moves back the regulating valve is seated. The flow of air is stopped at this point and builds up until it equalizes on both sides of the supply valve piston. The spring then goes into action driving the piston and the supply valve to the right and closing the port leading to the main reservoir.

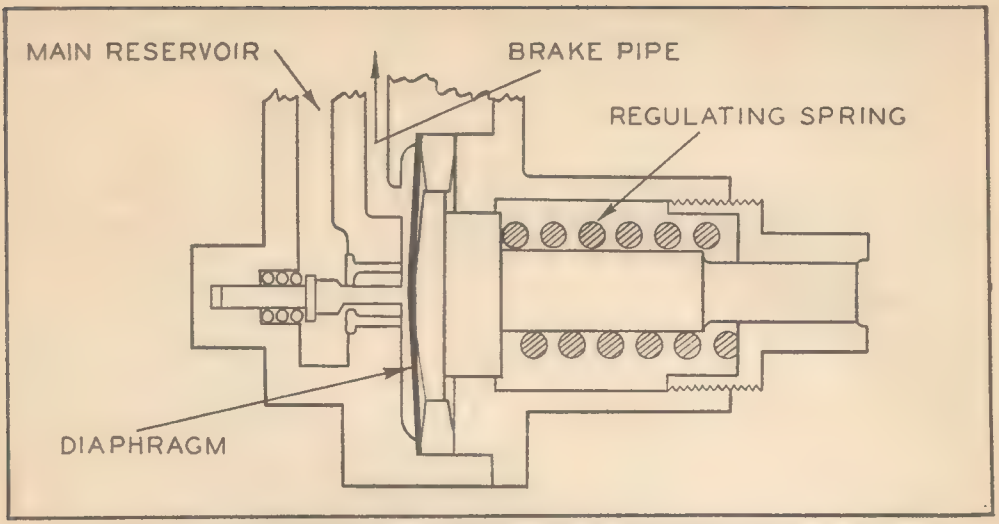


When the brake pipe calls for air the ports of the feed valve open, admitting the required supply. Mechanism operates on the principle of a strong pressure working against a weaker one

IN THE detail drawing of the regulating section, note that the diaphragm chamber is always connected to the brake pipe so that any reduction in pressure causes an immediate reaction. What happens is that the spring, held in compression by the force of a regulating nut, forces the diaphragm to the left and, unseating the valve, allows the trapped air to escape again and the supply valve to open in the usual manner.

It has been found advisable to use a diaphragm in preference to a piston and rings wherever movement is small, inasmuch as the former provides a more perfect air seal, is positive in action, will not stick and has a long life before failing. Eventually, of course, cracks will occur along the outer rings and when air does get by to the spring side, the valve goes out of order.

The design of feed valve just discussed has functioned well for many years with



Detail drawing of the regulating section, which makes use of a diaphragm to insure a perfect air seal

G6 and ET6 equipment. Recently a more practical type has been designed for the new ET8 system. Not because the valve failed, but due to a condition resulting from the operation of longer and longer trains. Here it may take anywhere from ten to twelve precious minutes to charge the airbrake system. An obvious way of speeding up the operation was to by-pass the feed valve by placing the brake valve handle in full-release position. However, this created the danger of the head-end of the train being overcharged—that is, being brought up to main-reservoir pressure. Later, as the air flowed back through the brake pipes in an equalizing process, a drop or reduction took place at the head-end. The effect was the same as though the engineer had drawn off brake pipe pressure, causing some of the triples to go into service position. This produced a dragging brake action at the head-end and spelled hot wheels and sometimes flat spots.

The new ET8 system completely eliminates these undesirable conditions. Without deviating from the basic design of the earlier feed valve it makes for quicker action through the use of larger ports and the Venturi tube principle. A new hookup prevents the use of full-release position by placing a nullifier on the brake valve handle. Now, all of the air which flows back to the cars must pass through the feed valve, insuring a proper balance of pressure throughout the entire system.

This, in brief, is the story of the minute gadget which brings refinement of control to the mile-long braking systems which bridle the momentum of today's heaviest trains.

INFORMATION BOOTH

Each month the Lantern Department prints answers to rail questions of general interest, submitted by our readers. We do not send replies by mail.

1

WHY *are hotboxes more prevalent in extremely cold and hot weather and what steps do railroads find most effective in combating them?*

The frequency of hotboxes during prolonged cold spells is largely due to the car oil in general use today. When cold it gets like glue and sticks to the journals, rolling out the packing at the front and

pushing box lids open. To help overcome this railroad car knockers in dispatching yards put a small amount of kerosene mixed with car oil along the journal on the rising side to break the heavy sticky oil film. Some use a kerosene-dipped swab for the same purpose. During the hot weather, however, the oil becomes so thin it settles to the bottom of the boxes and the oil film is so meager that lubrication failures again become numerous.

Proper cooperation between railroad departments produces good car performance. Train yard forces must perform their various duties with a minimum of delay, car inspectors and oilers must do quality work under pressure of time. Some yardmen don't realize the importance of their work. It takes much longer to set out a hotbox on the road than it does to service the box properly at a dispatching terminal.

Many hotboxes result from causes beyond the control of the individual carrier. The complex system of interchanging cars makes it impossible to know whether equipment coming from "foreign" roads has had axle work done properly, bearings completely inspected at the last repack date, and properly saturated, high-grade waste applied. And the possibility that the car inspector will detect faulty machine work on axles is slim.

His chances of finding wornout bearings are about one in five. It is unlikely that he will be able to judge the quality of the packing, or the car oil with which it is saturated. Therefore, his main safeguard against hotboxes is to hook journals to locate rough bearing surfaces or pulled brass linings and then to see that the packing is properly set and free oil added when needed.

2

HOW *many passenger cars are operated regularly by each division of the New York City Transit System's subway and elevated lines?*

Courtesy Trucks Magazine

Inspecting a tender truck journal box at the engine terminal

On June 11th, the Interborough Rapid Transit was operating 2240 cars, the Brooklyn Manhattan Transit 1263 and the Independent 1700. That day ten new ACF subway cars for the IRT's Flushing Line, resplendent in a new orange and grey color scheme, were ferried by Lackawanna tug and car across the Hudson from Hoboken, around the Battery to Long Island City, Queens. First of 760 cars on order, they are also the first brand-new rolling stock the city's subways have seen since 1939.

Although previous reports said that seats running the length of each side would hold forty-four persons, they actually seat sixty-two. There is room in each for 156 standees, ten more than in the IRT cars now in use. The

Left: Straphangers' Shangri-La. External window-sash guides on ACF's new subway cars for Gotham contribute to more spacious inter— Aw, quitcha shovin'! You want I should hang by the fluorescent lights?

Lower left: Interior of the R-12 car type assigned to the interborough Rapid Transit

Courtesy American Car & Foundry

new cars have fluorescent lighting throughout, including destination signs. Interiors are made even lighter by a color scheme of pastel blue and grey. Seats are upholstered in a rattan design on a plastic material; each car is equipped with thermostatic heat control.

These first ten cars were put in service at the same time the new ten-cent fare went into effect on July 1st, though that was merely coincidence. Company officials estimate that the new cars—costing $65,000 each—will be delivered at the rate of forty a month. They will be divided among the IRT, BMT, and IND lines, but not necessarily in proportion to the amount of rolling stock now in use on each. ACF has contracted to deliver 750 cars at a total cost of more than fifty million dollars.

The remaining ten—to be operated as a unit—are being built by the Budd Company of Philadelphia at a cost of $1,195,000. There is no present indication when the Budd cars will be delivered, but the contract expires January 20, 1949. Streamlined and modernistic, they will be constructed of stainless steel.

3

SUPPLY *figures showing the rate of increase of steam locomotive tractive effort.*

Tractive force of the average steam locomotive on Class I railroads of the United States was 34,995 pounds in 1918, and 54,523 pounds in 1947, an increase of about fifty-three percent, and a rise of twenty-one and seven-tenths percent in the eight years since 1929.

4

KINDLY *furnish the story of the Wabash Pittsburgh Terminal Railway. Two years ago this road's terminal was destroyed in a multi-million-dollar fire; now, the large Wabash cantilever bridge over the Monongahela is being taken down and the tunnel at its end will be sealed.*

During the closing days of the final session of the Fifty-sixth Congress in 1901, a senator from Pennsylvania and a representative from the Pittsburgh area introduced into their respective houses a bill reviving an old act authorizing a rail-

road bridge across the Monongahela at Pittsburgh. No attempt had been made by the original applicants for the privilege to avail themselves of it, and their permission had lapsed by limitation. Granted originally for construction of a steam railroad bridge, a renewal of the right was now wanted for the Pittsburgh & Carnegie Railroad, a projected trolley line.

This innocent project suddenly became part of the most costly rail battle in American history. George Gould, son of Jay and inheritor of his father's vast rail empire, owned twelve western roads and was out to form a one-management system stretching from the the Atlantic to the Pacific. Gould's chief lieutenant was young Joseph Ramsey, Jr., a Pittsburgher by birth and vice-president and general manager of the Gould-owned Wabash. The road extended as far east as Detroit and Toledo, and had recently acquired trackage rights into Buffalo. Yet Pittsburgh was its goal.

With Congress' passage of the Pittsburgh bridge bill—which had seemed to have one chance in a thousand—Gould won the first round in his battle for a share in the rich Pittsburgh freight traffic. This transport business exceeded that of New York, Chicago and Philadelphia combined, in tonnage originated. After being caught off guard, the Pennsylvania launched a full-scale battle that carried through Pittsburgh city councils, various courts until it raged all the way up to the State Supreme and United States Circuit courts. As field general of the Battle of the Wabash, Ramsey visited his old home town frequently, followed by a crew of surveyors. Then came the biggest Gould *coup* of all.

Following a disagreement with Pennsy President Cassatt over high freight rates, Steel Baron Andrew Carnegie signed a

Photo from Nick Eggenhoffer, West Milford, N. J.

Straw-boss and broken Camelback. Date and data are lacking on this Lehigh & Hudson holocaust. The photo turned up in a Warwick, N. Y., auction

contract for large freight tonnage with Gould. Financier J. P. Morgan then went to bat for the Pennsylvania-Vanderbilt "community of interests." In arranging for a vast steel combine to prevent cut-throat competition and block Britain and Germany in the race for world markets, Morgan thought he had cooled Carnegie's desire for a new rail line. Carnegie, however, offered to control the new Wabash line into Pittsburgh, and signed a twenty-year pact with Gould.

Photo by R. H. Brown, 341 Stanford Ave., Pittsburgh 29, Pa.

Broken Link. Severed cantilever arms of fine old "Wabash" bridge at Pittsburgh symbolize the failure of a great transcontinental railroad dream to reach fulfillment

On March 25, 1901, an ordinance was introduced in City Council to construct the Wabash bridge, Gould teaming up with Ramsey to form a seventeen-million-dollar syndicate. Included in the deal were Pittsburgh Coal Company officials and Myron T. Herrick of Cleveland, head of the Wheeling & Lake Erie. When the Pennsy—which had previously passed up a chance to buy that road—attempted to purchase the property, it discovered that Gould already controlled the line. He had paid more for a controlling interest than the whole road and all of its securities had originally been offered for.

A gap of some sixty miles intervened between Jewett (Ohio), eastern terminus of the W&LE, and Pittsburgh. On June 14, 1901, the Wabash started work on this connecting link and by July awarded contracts for tunnel and bridge construction. Pittsburgh bids were higher than those from out-of-town firms and Ramsey showed short-sightedness by awarding contracts to the latter. When the city refused to okay construction plans, Gould went ahead; and while the Pennsy was throwing up road blocks in his path, he bought control of the Norfolk & Western, a link in the PRR chain, for thirteen-and-a-half million dollars.

On October 9th after much maneuvering, Gould agreed to deal with the Pennsy if the right to Pittsburgh were given in return. He sold the stock to the Pennsy which did not withdraw its opposition, however. The tide of prosperity which had been sweeping the country reached its peak in 1902 and played directly into the Wabash's hands. The Pennsy's complete failure to cope with the great volume of traffic in the Pittsburgh area, resulted in a great freight blockade, and this came when businessmen were least willing to bear it. The Wabash fanned the flame of local discontent by appealing

to them to bring competition into the city and succeeded in winning a measure of support.

After a two-year fight the city council granted an enabling ordinance, giving the road permission to construct its Pittsburgh terminal. In 1904 the great cantilever span over the Monongahela was completed. Weighing over seven-thousand tons, extending 812 feet between towers with a height of seventy feet above water, this structure was exceeded only in size by the Forth Bridge, when built. It accounted for a good part of the more than $20,000,000 spent to complete the 60-mile Wabash Pittsburgh Terminal.

Gould's long battle was hard fought. Several years after he obtained entrance into Pittsburgh, he discovered that his road facilities were insufficient for the amount of traffic on his books. Then came the panic of 1907. Gould's empire was parceled out to his enemies—especially Harriman—and the WPT lost its identity. It is now called the Pittsburgh & West Virginia.

5

WHAT *percentage of new automobiles is hauled by rail in the United States?*

Approximately twenty-five percent of this country's new cars is shipped by rail. Most of the remainder are carried by auto transport trucks or driven over the highways, but in the last couple of years large streamlined steel, double-deck boats, designed solely as auto carriers and capable of transporting six hundred cars, have been picking up cargoes of new passenger vehicles at Cincinnati and other Ohio River ports, carrying them down to New Orleans and other points along the Mississippi.

6

SKETCH *the early development of tank-car equipment in the Pennsylvania oil fields.*

The first tank car, introduced around 1861 when railroads had become interested in the transport of petroleum, consisted of two wooden tanks or tubs—each holding about forty barrels—mounted on a flatcar and securely tied or bolted into place. Experiments were made with various other types of cars, one an ordinary boxcar lined with tin and divided into compartments. But the car that finally displaced the wooden tanks was tubular in shape, constructed of boiler iron and similar in

Three expansion domes for a heady shipment. Don Cimino wine cars are glass lined

Photo by C. T. Steeb

general design to those now in use. The first iron tank car was put into service on the Jamestown & Franklin in June of 1870.

So successful was it that the tank became standard equipment. According to J. T. Henry's *The Early and Later History of Petroleum* published in 1873, there were "on all railroads that handle petroleum, about twenty-five hundred iron bulk cars, of average capacity of eighty-five barrels to a car." In later years they were greatly enlarged.

7

PRINT *specifications of Pittsburgh & West Virginia Mikado Type locomotive Number 912.*

Pittsburgh & West Virginia No. 912.	
Cylinders	25x32
Drivers	58
Pressure	200
Tractive Force	58,620
Weight of Engine	234,790
Builder	Alco
Date	1909

8

HOW *did the number of grade crossing accidents in 1947 compare with those of the previous year?*

While both fatalities and injuries declined, crossing accidents rose slightly in 1947 from 4001 to 4015. Total deaths at grade crossings were 1790 against 1851 in 1946, and injuries dropped to 4251 from 4397. Ninety percent of these accidents involved motor vehicles, the remainder pedestrians or other traffic.

Saturdays stayed right on top as the day for grade crossing collisions, just as they have done since 1935. For the fourth straight year December accounted for more accidents of this type than any other month. The hour of greatest frequency of accidents in 1947 was 6:00 to 6:59 p. m.

9

GIVE *a brief account of the New Orleans & Carrollton Railroad, one of the first street railways in the United States.*

The New Orleans & Carrollton began operating in 1835. It ran from Baronne and Canal streets in New Orleans to the village of Carrollton, a short distance above the city. The company's charter provided that a majority of the property owners along whose land the line ran could, in case the railroad was considered a nuisance, serve thirty days' notice to have the track removed and "the street put in the same order as it was before." By converting the muddy street into a fine cobblestoned avenue the company cleverly discouraged the operation of the unfavorable clause.

After 1845, steam dummies were used to haul the train from Carrollton to Tivoli Circle (Lee Circle), from which point horses completed the run to Canal Street. Half a century later—1894—when the line had been taken over by the public utilities interests of New Orleans, electricity supplanted the old equipment. The New Orleans & Carrollton was eight miles in length.

10

RECENTLY *the Baltimore & Ohio has made extensive changes in its signal system for northbound trains on the main line between Wilmington and Philadelphia, involving the moving of signal posts. Can you tell me what these changes are and why they're necessary?*

The main line between Philadelphia and Wilmington is merely getting the modernizing treatment which the B&O is giving the whole system. Individual semaphore signals are rewired and sometimes replaced with modern Color Position Light signals. The poles are relocated where greater uniformity of block lengths, longer approach view by the engineer or increased braking distance is desired.

Photo from American Car & Foundry

Out of the Car Shop:

A. C. F. Dayliners for the Alton Route

EIGHTY-FIVE percent of all Chicago-to-St. Louis rail travelers ride the Alton Route. To guarantee its continued popularity, new owner Ike Tigrett placed his bid with ACF for eleven new coaches and four parlor cars, while his Bloomington, Ill. shops set about restyling old equipment. This fall GM&O's three daily trains for this run—the *Abraham Lincoln*, the *Alton Limited* and the *Ann Rutledge*—will show the results. Could be every Sleepy Hollow seat will be filled!

Photo from American Car & Foundry

Standard coaches for GM&O's day streamliners provide adjustable foot rests with arrangements for serving trays, individual fluorescent lights, wide vision windows and two-tone upholstery. Luggage can be stored in the overhead racks or in vestibule compartments

NEW YORK CENTRAL SYSTEM
6401

6401

Niagara type influence is reflected in domeless boiler and front end arrangement of new, high-capacity *Berkshire* type

Locomotive of the Month

Pittsburgh & Lake Erie 2-8-4

LAST batch of steam locomotives scheduled to be built by the American Locomotive Co. comprises seven 2-8-4s currently being delivered to the New York Central for use in heavy freight service on the Pittsburgh & Lake Erie. While not the most powerful engines of this wheel arrangement (despite their relatively low drivers their tractive effort is exceeded by that of Berkshires on eight other American railroads), the P&LE machines probably incorporate more features contributing to efficient performance than any of their predecessors. These include a collector pipe in place of the customary steam dome, jacketed smoke box to reduce heat losses at the front end, firebox air jets to control the density of the exhaust, air after-dryer and an all-weather cab. New York Central's adoption of the 2-8-4 comes late in the history of a type which did much of its pioneering on the Boston & Albany.

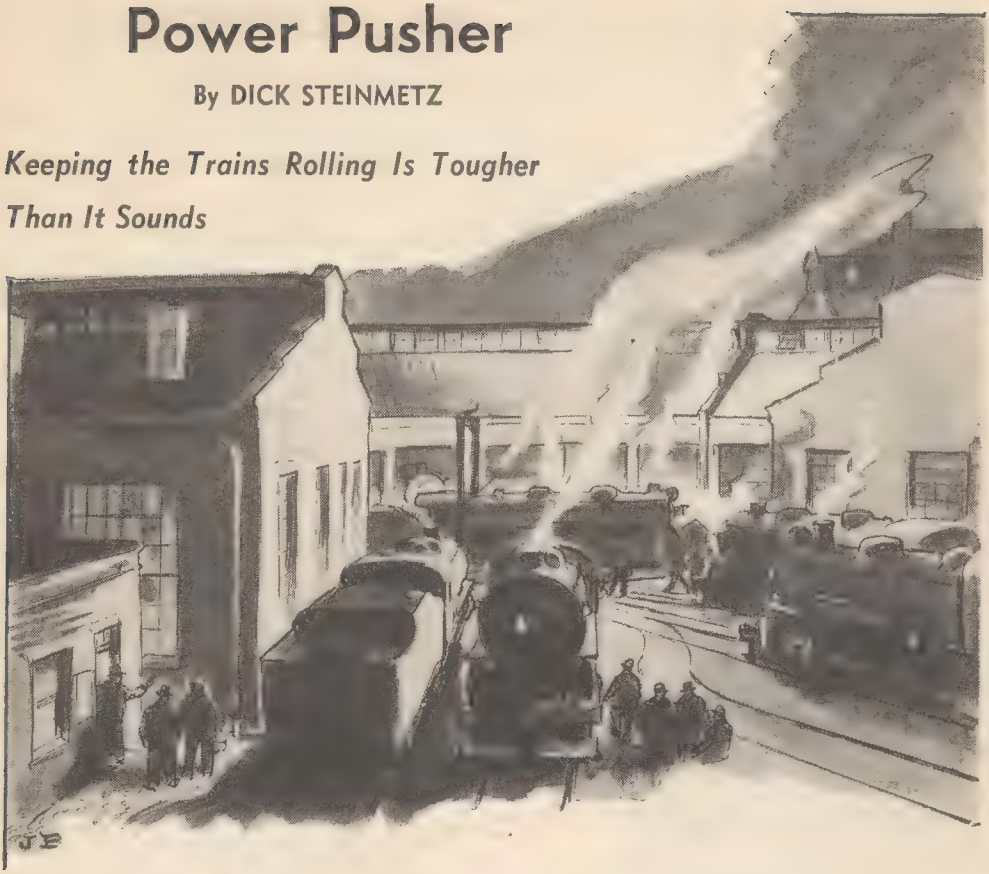
Specifications:

Numbers	9400-9406
Cylinders	26x32
Pressure	230
Drivers	63
Weight on Drivers	280,000
Grate Area	90.3
Tractive Effort	67,130
Weight, Engine	426,000
Weight, Tender	352,780
Capacity, Tender	
Coal	22
Water	20,000
Wheel Base, Engine & Tender	95-5½

Power Pusher

By DICK STEINMETZ

Keeping the Trains Rolling Is Tougher Than It Sounds



ALL BIG engine terminals have them. Invariably they are hard-boiled old-timers who know their motive power and railroad from A to Z. The toughness is not always natural, however; it's generally been accumulated from years of battling the elements, the perversities of human nature and the eccentricities of the average locomotive.

In official category they are listed usually as assistant enginehouse foremen. But the men who work with them in the noisy, smoky roundhouse, on the inspection and ash pits and in the bustling storage yard, have given them a far more appropriate tag. Among the rails they are known as "power pushers", for theirs is the responsibility of furnishing locomotives for the speedy strings of varnish, the lowly local and long freight drags, as well as for the drill crews in the sprawling terminal terminal yards.

Take, for example, Harry Reber. This is not his real name, but we'll call him that for several reasons. Harry is third-trick power pusher at a big eastern engine terminal, served by three divisions and a branch line. We chose Harry to illustrate our story because he and his work typify an angle of railroading that is little known and seldom mentioned in print.

Let us spend just part of a tour of duty with Harry, several hours of "behind-the-scenes" activity that will answer many questions of the railfan and patron alike.

Why is a certain class of engine used on one train and not another; or used on a branch line and not out on the main? Why must an engineman turn in a detailed report of engine performance and defects

at the end of his run, and what is the proper procedure for handling said report? What are the boilerwash requirements of each class of locomotive and how are the work reports handled in the shops and office? What happens and what is done when an outbound engine has a failure right before train time? What to do if a hostler or road man gets an engine off the iron at a strategic point on the inbound or outbound tracks?

Our friend Harry must know the answers to these and a multitude of other questions as he circulates between the enginehouse, turntable, ash pit, storage yard and inspection pit night after night. Let's join him as he arrives at the enginehouse about an hour before the time for a shift change.

Switching from street clothes to clean blue coveralls and comfortable work shoes doesn't take Harry long. He pauses momentarily then before the prominently displayed bulletin board in the big locker room, where a glance shows several job advertisements. Mentally noting the

names of the men who have vacated the jobs, the foreman enters the spacious enginehouse office. Here he shares a desk with the power pushers from the other two tricks.

First on the program is a pile of letters, memos and forms to be assimilated, including very pointed epistles from brass hats wanting to know the what, when, how and why about a thousand and one things. "Kindly submit detailed report concerning 15-minute detention to Train No. 8, Aug. 11, due to failure of Engine No. 3743." "It has been reported to us that there is an unsafe condition at the—. Determine and report to the undersigned." . . . It goes on and on. Quickly Harry skims through it.

Once his correspondence is out of the way, Harry glances at a twenty-foot blackboard bearing a conglomeration of figures indicating engines due for, or out of a boilerwash. A clerk hands him a list of the trains and their engines inbound on his trick. He checks this against the figures on the blackboard to determine if any of the incoming engines are due for the monthly I.C.C. inspection and boilerwash. Reaching for a telephone and twirling the dial, he contacts "Red" Barker, gang foreman at the inspection pit.

"Red? This is Harry. How are things tonight?"

"Not too bad, Harry. I'm sending the 3479 in for sponging. The 4502 has a belly plate leaking bad; the 1274 needs a right trailer truck spring and the 5404 has a bad air leak at the pump."

"Okay. Send the 3479, 4502 and 1274 up to the house. We'll fix the 5404 over in the yard. Now the 690, 6811, 1524 and 8280 are due in for wash. See that Bill marks them right for the ash pit. He missed the 92 last night and the first trick had to send her back to have the fire knocked out."

OUTSIDE the office a pop valve lifts with a deafening roar, momentarily drowning out the melody of enginehouse sounds. Just as suddenly as it lifted, it seats again and the whine of a generator blends with a bell's musical note, with a deep-throated passenger engine whistle calling for the turntable and the *clank, clank, clink* of sledge on cutting bar. And steam hisses incessantly from open cylinder cocks and shifting valves.

The night foreman calls to Harry from his desk nearby.

"Harry, the 422's ready to go out. 6910 will be done in about an hour and the 672 around four o'clock. That'll give you two boilerwash tracks and 27, 28 and 29 are empty. If you get any runners*, you can put 'em in."

"Right. I'll get the hostler off the 3479 to take the 422 out. She'll be the first in, followed by the 1274 and the 4502. I'm going to use the 422 on 503 this morning. That'll be a good run to break her in on."

The telephone on Harry's desk jangles, interrupting the conversation.

"Yes, Joe. What? The 924? You say she was cut off on account of a bad blow? Well, put her over on the back end of the 7 spur and I'll be down to test her after a while. Mark the 422 up on 503. How's the valley lineup?"

"The 729 and 1209 for 2 and 19, but none for 27."

"All right, I'll have 672 out of the house by four o'clock. Mark her for 27. What's the last westbound you've got covered?"

"Number 73."

"Well, that means we need twelve more engines to cover our run. There's fourteen marked up inbound. That'll leave us just two for projects—if the boys on the inspection pit don't shop any. How many yard crews are marked up?"

"There's two for SK hump, three for the east yard, two for 20th Street and four for the station."

"Have you enough engines to cover them?"

"No. I'm short two for SK at 3 and 3:30 o'clock."

"Okay. I'll have the 2112 and the 2382 around for you by that time."

A sudden babble of voices outside of the office indicates that the middle trick

*Engines needing repairs and not due for a boilerwash.

men have started streaming into the locker room. There is the usual boisterous exchange of conversation, the sound of running water in the shower baths and washbowls, the rattle of locks being opened and doors being slammed. Ribald remarks and pointed puns are flung back and forth between the outgoing and incoming crews; a nightly occurrence, characteristic of railroaders everywhere. The loud noise filters into the busy office where Harry is figuring out his power lineup for the night.

Eleven o'clock and all preliminary details have been attended to. But Harry's years of experience have taught him to take nothing for granted. All his carefully laid plans may go haywire at any moment. Inbound engines may be running late, or may arrive in a condition which requires hours of work before they're fit for service again. Outbound engines may develop trouble before or just after they're coupled to a train. Whatever happens, Harry and his associates must keep the trains rolling. Sometimes that's a good deal tougher than it sounds.

Again the phone dial revolves and the turntable operator answers. Harry's gruff, but not unpleasant voice vibrates the receiver diaphragm.

"Bud, the 3479's coming in. Put her on 28 track. The 4502 will go on 27 and the 1274 on number one drop table. When you get the 2112 and the 2382, head them both east on two. The 5404 will go west on four. The 422's coming off 19 track. Put her east on three."

SO FAR Harry has accomplished all of his work at a desk. But the night has only begun, a night filled with hours of walking. Regardless of the weather it's hike, hike, hike for Harry. From the roundhouse to the ash pit, to the storage yard, inspection pit, turntable, crew dispatcher's office and back again to the roundhouse. Not once, but many times.

To operate the trains on schedule, Harry and his co-workers are responsible for seeing to it that they get engines: high-wheeled Pacifics, multi-cylindered streamliners, Diesels and powerful Mountain types to wheel the varnish and long freights at high speeds through the darkness without delay. Engine failures are costly. And they bounce right back to Harry for explanation.

Desk in order for the moment, the foreman turns to one of the clerks.

"George, I'll be down in the storage yard testing the 924. Then I'm going to the inspection pit."

Harry gets up from his chair. Before setting out for the noisy enginehouse, he packs down a fresh load of fine cut in his battered corncob pipe with a gnarled fore-finger and lights up. Then he is off, and his tour takes him through the high-ceilinged, dimly-lighted circle with its grotesque shadows and workmen's flickering torches. Mentally, he notes the engines in for various repairs and begins figuring when they will be ready for service again.

A detour into the big machine shop, to see if the 6809's left main rod has been brassed yet and if the drivers are turned for the 643, brings Harry to the rambling storehouse. Barrels, boxes and bins, row after row, containing everything from tacks to turbine generators. Danny Good, who's been last trick storekeeper since people remember, can usually provide almost anything. But, today there are many necessary items unavailable. Harry stops in to ask Danny if the stoker screw ordered for the 1822 has arrived.

A short conversation with the store's genial clerk and Harry is again on his way—out through the odorous oil house with its row of steel drums, sticky drip pans, buckets, cans and a huge waste bin. The cool night air is good after the heavy smell of the oil house. Harry swings along a well-worn cinder path leading past the

scrap dock, whose shadowy cars lie silently beside piles of discarded material.

Nearby is the floodlighted ash pit. Two of its tracks are straddled by a huge bucket crane that is noisily dipping ashes from one of the two water-filled pits between the rails. The other is occupied by several engines in the process of having their fires cleaned. Here, too, as in the enginehouse, workers still use the old-fashioned coal-oil hand torches. This may seem odd to the layman, but workmen prefer them because the company furnishes them free and they will burn all night on one filling without any attention what-so-ever.

Despite the powerful floodlights, torches are necessary, for clouds of steam and smoke frequently obscure the electric illumination. In flickering light, men go about their business dumping and washing down ash pans, or wrestling with long hooks and bars in the glare of an open firebox door. Steam, smoke and the distinctive odor of wet ashes fills the air here, where muscle, endurance and sweat are the rule.

Number 924 stands on number seven spur, hissing noisily through her cylinder cocks as though protesting the coming test. Meanwhile Harry has stopped in at the ash-pit shanty to advise the gang leader about knocking fires on the engines coming in for boilerwash. A hefty hostler, his white work cap perched at an angle, stomps into the shanty, cussing the crane operator for slopping up the walks with water from the pits. Harry greets him with a wisecrack about the general disposition of hostlers, and they rib each other for a minute or two.

Work is work, however, so Harry winds up the talkfest promptly.

"Come on, come up, Bob, we've got to test the 924 for a blow. She's waitin' for us over on seven now. Let's get started."

THE HOSTLER moves the engine under Harry's direction and the test gets under way. At one point steam roars from her stack, indicating what motive power men call a blow. Years of experience tell Harry the story of the 924's trouble. He orders her into the house for repairs.

Wraiths of steam eclipse the floodlights mounted high on the crane runway, necessitating the use of a flashlight as Harry gets going again. This time he heads towards the inspection pit. Crimson marker lights gleam in the darkness and the flickering long-handled torches of the inspectors probe the vitals of the giants of the rails. Suddenly a beam of light engulfs Harry as an electrician tests a high-wheeled Pacific's headlight.

The *tap, tap, tap* of the inspectors' hammers on knuckle pins, main rods, lap and lead levers, rivet heads and bolts mingles with the high-pitched whine of a generator and ever-present blowoff of steam. Familiar sounds, all of them, to Harry Reber who pounds along the walk between the engines, hurrying to the shanty that serves as an office and shelter for the inspectors.

A high desk extends along one side of the small room and a wooden bench along the other. At one end, a wire partition with a small window separates the inspector's office from a smaller room used by the crews making out their reports and timecards. A strong smell of tobacco and soft coal smoke permeates the place.

Red Barker is chewing the stump of a long-dead cigar as he checks and signs the engine work reports. The gang foreman looks up quizzically as Harry enters. Anticipating the power pusher's first question, he shifts the cigar stump to the left, spits expertly into a nearby box of sand and starts talking out of the corner of his mouth.

"The 425's okay. The 5339 needs the number one tank truck brakes taken up. The 7218 has a—"

The jangle of a telephone bell interrupts and Red answers. "It's for you, Harry."

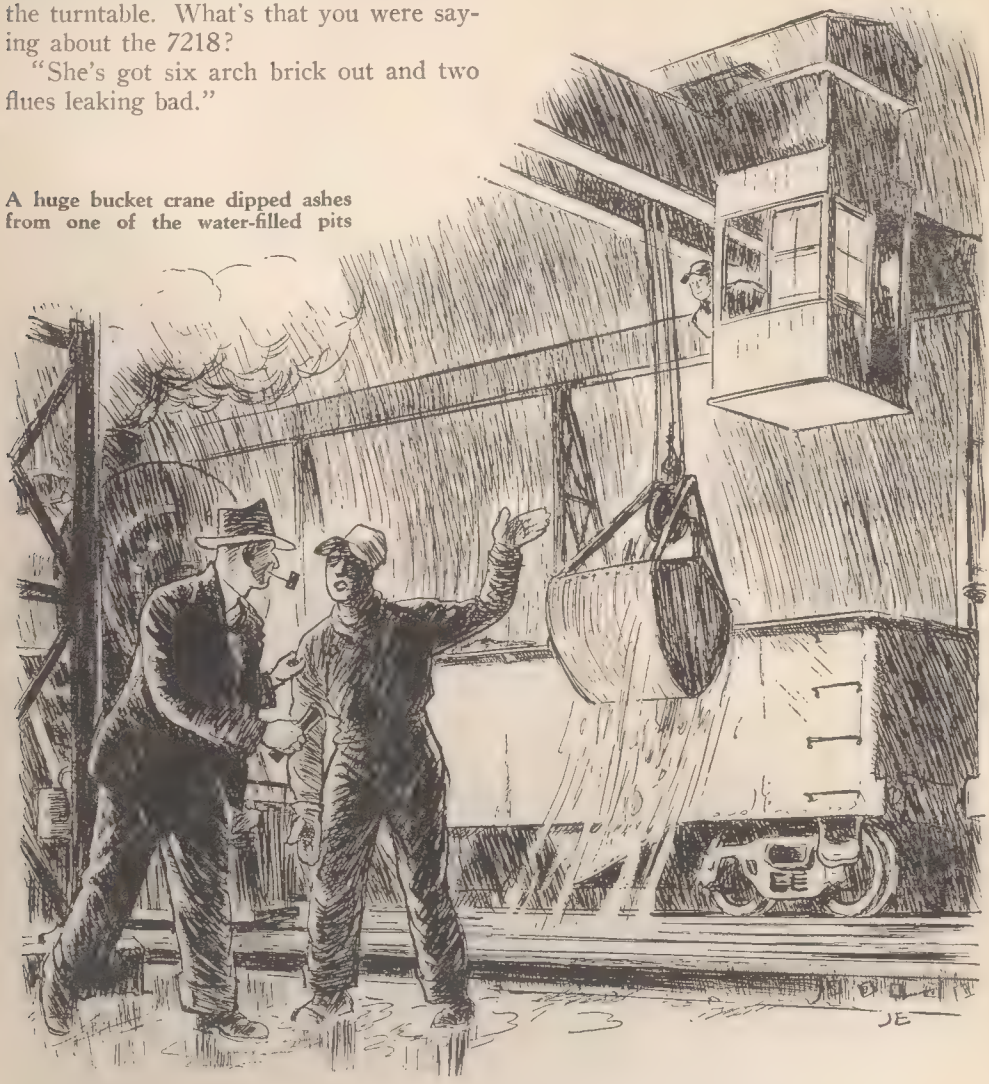
Harry knocks the dottle from the corn cob's battered bowl and picks up the receiver.

"This is Reber. What—? Okay, I'll be right up. Tell Tom to round up the boys and get blocks and re-railers out there right away."

Planking down the phone, Reber turns

to Red and answers the questioning look in the gang leader's eyes. "The 922's off the iron. One of our bright hostlers ran through the derail on the inbound up at the turntable. What's that you were saying about the 7218?

"She's got six arch brick out and two flues leaking bad."



A huge bucket crane dipped ashes from one of the water-filled pits

"Well, tell the ash pit to knock the fire and get the boilermakers on her as quickly as possible. I need her for 25. Got to hurry now and get that inbound opened up again."

Two steps outside the door Harry is intercepted by Andy, the storage yard boss.

"Harry, you've got the 2112 marked for SK, but the dispatcher just called another crew for the east yard. How about using her for that job and keeping the 926 out for another tour on SK? We'll get the crews to change at the hump."

"All right, but first trick must get her in for inspection pronto. We don't want anything to happen that'll tie her up. Send a man up from the ash pit to clean her fire. Lord knows we're short enough of power as it is."

Again Harry strikes out for the turntable about a quarter-mile distant where a cluster of bobbing lamps illuminate the running gear of the derailed engine. One of two engines behind the 922 has been

coupled to her. She coughs lightly through her stack as she eases the derailed engine back over the blocking and re-railers on to the track again. By the time Harry arrives on the scene, the derailed locomotive 922 is ready to move under her own power again. Reber hails Tom, the enginehouse gang leader, who had superintended the job.

"Good work, Tom. Now get her in on 29 track and see if there's any damage. I hope not, for we need her real bad tonight."

BACK IN the office Harry arranges for statements from the hostler who'd derailed the engine, the man in charge of the derails and the turntable operator, who had witnessed the affair. George, the baldish clerk at a desk opposite Harry, catches the power pusher's eye. He pulls a pipe out of his mouth.

"Say, Harry, dispatcher just called," he says in a matter-of-fact tone. "Said they cut the 5481 off of 58 at Lewis on account of an air pump failure and the 5327, Lewis protect, was substituted. He also reported two drags and a main out of Altna. The first drag has the 12-spot, the second the 642 and the main the 6821. That'll give us a couple of engines for day trick."

Unfolding his run-down sheet Harry notes the information and then dials the steam pit.

"Hello, Red. There'll be two drags and a main in, the first about four o'clock. The others will follow close."

Red acknowledges the information and volunteers some of his own. "Harry, the 6241, the 8331 and the 2482 are okay. The 1342's leading drivers need turning, they're away out of tram and the gage shows excessive wear."

"Send the 1342 in."

A gnarled forefinger holds the receiver hook down momentarily and the dial spins again.

"Turntable? After the 1221 we'll have the 6241 and the 8331 to go west on four and the 2482 east on three. Keep 'em all on the iron."

The turntable operator's chuckle is cut short as Reber hangs up and reaches for his pipe. He lights up leisurely, pushes himself up from his chair and turns to George.

"I'll be down at the steam pit if anybody wants me, after that—:"

And so it goes. Seldom a dull moment for Harry, seldom a chance to relax during his tour of duty—night after night, month after month, year after year until retirement time comes. The life of a power pusher is not an easy one by any means; but it has its attractions.

For instance, there's the satisfaction of keeping 'em rolling. And the indomitable spirit born in people like Harry Reber carries on the traditions of our greatest transportation agent, America's railroads.

". . . and how do *you* people like our super-soft seats?"

"Snuffy"

By PAUL McGUIRE

SNUFFY was a dog. That is all that's known about his genealogy, his immediate ancestry or his present whereabouts. He signed up with the 713th Railway Operating Battalion and received his training in Camp Wm. C. Reid on the Santa Fe at Clovis, New Mexico.

Snuffy was taught the ways of the Army by a battle-scarred bull-dog mascot named Bob who kept him confined to Company C. The lonely youngster found a friend and confidante in Sgt. John E. Carroll who taught him the tricks of how to dog through a soldier's life. When the battalion was divided in August, 1942, Bob accompanied the outfit that left for service in Alaska. Snuffy immediately assumed the duties of chief mascot of the 713th and filled the position with more or less distinction until he became a casualty of the battle front.

If you don't understand the affection that a tough hard-bitten company of soldiers can lavish on a mongrel pup, there is no way to explain it to you. It is another of those things that you have to feel to realize. It might help if I told you that there was an old saying out here in the West, "Never curse a boy's father, strike his horse or kick his dog."

The soldiers lavished hours of spare time teaching this little mascot all the tricks of a good trooper. Sgt. Carroll, a rigid disciplinarian, taught him to lie quietly for hours at a time in a tight, hot barracks bag and he could practice this art to perfection. But before the outfit entrained for Ft. Dix and overseas, rigid instructions were issued that no pets or mascots could be taken to the port or overseas. I have the word of Lt. Col. E. E. Foulks that there were no deviations from these instructions even if Snuffy did arrive at Ft. Dix with the unit.

On departure from Ft. Dix for embarkation at Staten Island, Snuffy again disappeared to show up later on board ship in Sgt. Carroll's barracks bag. I found this out from one of those "now it can be told" confessions by Captain V. I. Kessinger. Other members of the outfit risked punishment by absorbing Sgt. Carroll's clothing to make room for the mascot.

Of course, there is nothing colder than yesterday's pork chops or last year's war; but recall if you can that serious punishment would have been summarily meted out to every soldier guilty of any part in this conspiracy. None of them would have risked their honor and integrity for anything of trivial consequence.

Aboard ship all went well for several days. There was no company mascot except for short periods in the middle of the night when Snuffy was given quiet shifts of exercise by first one and then another of the company out on the deck. The fifth day out, the order was sounded to "abandon ship." Snuffy was left in his barracks bag on Carroll's bed. When the assigned officer came rummaging through for an inspection of the quarters, Snuffy took a nip at his hand just to let him know that he was being neglected.

This incident went unreported only after both men and officers had used various methods of persuasion with the offended one. Peace was restored. Snuffy was dignified and tranquil until the next day when the men were again on deck taking exercise.

Snuffy decided to make an inspection of the ship, as was undoubtedly his duty. There was mild bedlam on board when his absence was discovered. The ship was searched thoroughly but the mascot could not be found. Finally some of the officers were called upon for assistance, and Snuffy

was located in the office of the Commander of Troops.

There was a long period of oratory, reading of orders and communiques but Captain McGee finally swung the jury in favor of Snuffy's release when he gave a touching oration on, "Why Boy Loves Dog." Snuffy was a scared soldier but when the ordeal was over he found relief at what looked to him like a fire hydrant. The outraged captain of the ship exploded. The immaculate office was desecrated and his dignity offended. There was only one thing to do and he did it at once.

The captain called a sailor and ordered Snuffy thrown to the sharks. The sailor was waylaid enroute to the rail but neither the words of the men or the officers availed anything. Failure to obey orders at sea was mutiny; in time of war, treason. Did any of them realize what they were asking?

Proud warrior in the foreground is Snuffy, who seems to take the duties of war somewhat more seriously than do the Captain, Chaplain and Commander. Lt. Col. E. E. Foulks, *at right*, is now AT&SF superintendent of transportation

OF COURSE the sailor wanted to be reasonable. He knew exactly to the dollar what the mascot was worth to the battalion and he extracted the full amount before he committed perjury, insubordination, mutiny and treason.

Snuffy made a safe landing at Casablanca and fulfilled his duties as mascot during the campaign in Morocco, Algeria and Tunisia, where the battalion won a citation for its excellent and speedy construction of railroad under fire from the enemy in difficult front-line conditions. All of these soldiers had previous railroad experience. They had passed strict railroad and army examinations and there wasn't a color-blind man among them. Unfortunately Snuffy never passed the tests. He had a natural vigor unequalled by any of the native dogs but was completely color-blind.

African or Arab, all the native bitches looked alike to him and he did his best to complicate international relations by leaving litters of soldier-orphans at every rendezvous. At one time he was AWOL several days. He was plenty willing to embark for Italy in September, 1943, under the cover of secrecy and darkness. On this voyage it so happened that Col. Foulks was assigned as Commander of Troops, and since the ship Captain was quite fond of Snuffy the dog enjoyed a place of honor. Headquarters was established at Naples and the outfit went all-out in repairing motive power, equipment and tracks to handle supplies for the Fifth Army.

Bridges had been blown out, abutments

and piers destroyed, frogs and switches were shattered by charges of TNT. There the battalion first saw the deadly efficiency of the German "grouder," a 10-ton plow-like machine pulled by three locomotives, which breaks every tie, destroys the road-bed and in addition blows every rail with a demolition charge. The Naples railroad yards were a mass of twisted wreckage. The port itself, served by a network of yards and rail lines, was littered with the ruins of frantic destruction: fallen buildings, blown ships, demolished piers and battered rolling stock. Surmounting the unparalleled destruction with unceasing toil, the unit began operating trains from the port within five days.

It was during these hellish hours of work, during days and nights when tempers were on edge and buddies were being killed by your side, that Snuffy was reported missing. Due to certain unfortunate experiences with certain allies in Africa, treachery was suspected.

After about the tenth day many of the outfit were for fighting the war from another angle and soldiers from West of the Pecos were restrained with utmost difficulty. The mascot, like many soldiers, had a perfect battle record but his conduct off-duty was certainly not above reproach. It was entirely possible that he was keeping rendezvous with some charming Italian *signorita*.

A reconnaissance by Sgt. Carroll and others located Snuffy in a British outfit near Cassino. This was trafficking with the enemy and Snuffy was returned to his battalion and tried for treason in full military form. Only his battle record saved him from being drummed out. He never spoke a word in his own defense but there were plenty of advocates to plead his case. He was reduced from Lt. Colonel to buck private. The cause of his dereliction was not discovered then—and so will never be known.

By this time the 713th was handling road movements from Naples to the front and had made an enviable record as one of the oldest units of its type. It was the only company of its kind to follow the Germans in their retreat through Africa. It was the first unit of its type to land on the European mainland. It received a citation for exceptionally meritorious service in Italy.

Snuffy was detailed to inspect the yards which at that time were in charge of the 727th RO Bn. It was while making a tour of duty that he was struck and killed by one of their switch engines. He was posthumously raised to his former rank and buried with full military honors.

Every man in the outfit mourned Snuffy's loss. Although other mascots had been acquired both before and since that date, none of them ever replaced Snuffy in the affections of the 713th RO Bn. But he was just a dog, you say, and so he was—useless, full of mischief; all in all, a nuisance most of the time. Mother said those things a thousand times about me—I guess I have a lot of love for that kind of folks.

Syrup, dear? . . .

Electric Lines:

Rochester Subway

ROCHESTER'S rapid transit and industrial subway comes of age this year—on December 1st it will celebrate twenty-one continuous years of public operation. Nine miles long, it bisects the city from southeast to northwest, coming within half a block of the crowded business area. When built it required not only the financial expenditure of twelve million dollars, but necessitated the excavating of one million cubic yards of earth, the pouring of 154,000 cubic yards of concrete, the laying of thirteen and one-half pounds of steel and fifteen miles of sewer pipes. Yet with all this, the City of Rochester—owner of the line—has never exploited its potentialities as a passenger carrier.

No other city in the United States can duplicate this setup, and no metropolis of comparative size could afford to be so neglectful of these possibilities. It is true that the Rochester subway does provide fast, efficient passenger trains, but when it allowed local railway routes to be abandoned in 1941, quick entry into Rochester from outside suburbs became a thing of the past. Since that time the rapid transit company has continued to operate without any extension or alteration. There have been plans mentioned for better utilization of the surface lines—but no concerted action. Before we consider this, however, let's look back on the early days of city transportation.

Rochester was one of the first cities to have a horse-drawn railroad—not a street railway but a four-mile track known as the Carthage Road constructed in 1833. This ran for four miles along the banks of the Genesee River, connecting the lower waters of the river with the Erie Canal. A century later the same canal was used as a right-of-way for the subway.

Although horse-drawn, the Carthage Road cannot be classified as a street railway. First horsecar line in Rochester was the Rochester City & Brighton, incorporated May 20, 1862. The first car ran on what was then known as the Mount Hope Avenue line, on July 22, 1863 and soon was recognized as a great improvement over the old stage coach line operated on East Avenue between Main Street and the race track.

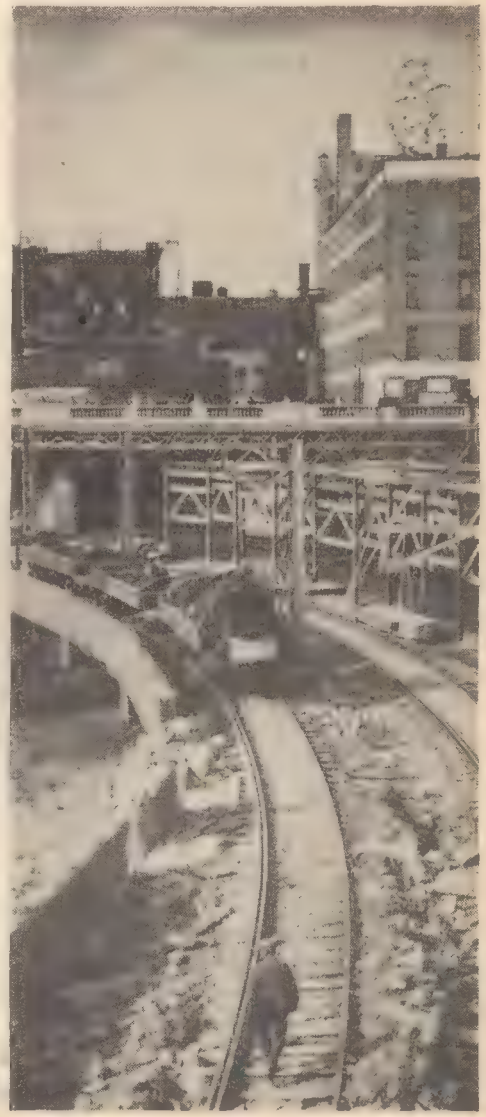
Following the opening of the RC&B horsecar route, the company added other runs; in 1866 there were five lines with nine miles of tracks. During the next few years other horsecar lines were installed. The RC&B became the Rochester Railway company and absorbed the Rochester Elec-

tric Railway, an independent line. Electrification of all lines took place during the 1890s. Then followed construction of interurban lines out of Rochester to Geneva and to Sodus Point.

On March 22, 1909, the New York State Railways came into being, a corporation which eventually would operate all street railways in Rochester, Syracuse, Utica, Rome and Oneida, together with several important interurban connections. In Rochester the NYSR took over the Rochester Railway and added to its lines the Rochester & Eastern Rapid Railway, an interurban line running south to Geneva; the Rochester & Sodus Bay Railway, a 40-mile line to Sodus Point on the shore of Lake Ontario; and the Rochester & Suburban with two lines to Sea Breeze and Summerville. At the height of its existence Rochester's NYSR had 550 cars in operation over more than 250 miles of track.

To locate the right-of-way of today's Rochester Subway we must go back to the Erie Canal in the early nineteenth century. On October 29, 1822, the first consignment of freight left Rochester for Little Falls via the still-to-be completed canal. Then in 1825 the famed canal often referred to as George Clinton's *big ditch,* was opened to service, providing a convenient water passageway across the Empire State from Lake Erie to Troy near the Hudson River. The population of Rochester and other cities along the canal increased rapidly with the new form of water transportation. This was an important factor in bringing these "big towns" to the important position they now occupy.

As a result of the construction of a bypass, a 13-mile Barge Canal south of the city, the portion of the old Erie Canal through Rochester was later abandoned. So in 1911 negotiations were begun for the disposal of the lands of the canal within the city. It is hard to say who first proposed the use of the canal bed for a railway, or when the proposition was first publicly offered. Our guess would be that E. A. Fischer, City Engineer in 1921 when the Rochester Common Council first



One-car barn, *P. 84*, with Numbers 50, 66 (originally Mohawk Valley line) and 0343 and 2018 taking the weather outside. New barn and shops were built in 1941, when surface car lines were abandoned

Repair train, *right*, at work in 1934 on east end near Court Street, point where subway enters underground for one mile of its total nine. Motor car is 0220 with trailers 0430 and 0431

authorized the acquisition of the land, was one of the early promoters of the plan. For at this time he had already developed plans for a railway to provide convenient and rapid entry into downtown Rochester, and had also planned trackage for industrial freight switching. Since many of the city's large industries were located on the old canal, his proposal offered an excellent setup for freight interchange with the steam roads serving Rochester.

TITLE to the canal bed passed to the City of Rochester in January, 1922 for the sum of $1,500,000. In later years the subway route followed Fischer's blueprint to almost the smallest detail. There were to be two main tracks for the entire nine miles from Monroe Avenue in Brighton to the Driving Park section of Rochester, the northeast end of the city; one freight track for seven miles of the distance, with a second 1½-mile freight track downtown. Construction was let to the Scott Brothers of neighboring Rome during December, 1922, for work along the difficult downtown portion, where new street was to be built over the subway one block south of Main Street. Today Broad Street, still sixty feet wide, is an important bypass for automobile traffic in downtown Rochester.

During the next five years construction work continued at a slow rate. Piece by piece, contracts were bid upon for portions of the job. In the meantime the Rochester railway line was becoming a political football. At each election the respective parties would make city operation, construction progress or high cost into campaign slogans. For a time it looked as though the line would be both owned and operated by the city. Then NYSR officials let it be known that they would not run their interurban cars into the subway unless they were permitted to operate the line. They pointed out also that while they had the facilities to start operation at once, it would cost the city a million dollars more for equipment and overhead expenses.

Finally on May 20, 1927, the City Council voted to permit the New York State Railways to operate the subway under a service-at-cost contract identical to that under which they operated city streetcars. This contract lasted until 1924. Under its terms the first $100,000 of income went to the railway company; the excess over that was split between the city and a fare-determining fund set up under the agreement.

Rowland's Station, east end of line, and Number 68 bound for General Motors Rochester plant. Abandoned track at right, former interurban route to Geneva, is now being considered for short subway extension

Early in August, 1927, the first trip was run over that portion of the subway nearest completion—from City Hall to Winton Road station. Two heavy interurban cars from the NYSR Geneva line carried city officials and company men on the inspection trip. Regular service on this section was opened to the public promptly on December 1, 1927.

The line was not ready to open, but the pressure of a record expenditure of twelve million dollars and five years' time without tangible results

One of only two new pieces of equipment bought for the subway, electric locomotive L-1 was assembled in local St. Paul shops. L-2 was a 35-ton Plymouth Diesel

forced the city and railway company to start operation at the first possible moment.

Signals were not yet installed, reballasting was needed, and several sharp curves had to be replaced. In addition, several station platforms were leaking rainwater and had to be repaired. With the opening of the rapid transit passenger service, however slow, the well-used Rochester & Eastern division cars of the Geneva interurban line were diverted into the subway at Monroe Avenue by means of a ramp. The freight line was ready for switching operations and contracts with the steam roads for interchange of freight were arranged. By August 31, 1928 the New York Central, the Lehigh Valley and the Buffalo, Rochester & Pittsburgh had signed on the dotted line. Later on, the Erie system also closed its contract.

Rochester, Lockport & Buffalo cars began using the subway in February, 1928, entering via the Lyell Avenue ramp since the line was near completion on the west end. Rochester & Syracuse interurbans used the subway also, but they cut in near Winton Road. There was some delay at this junction because the R&S line was double tracked for right-hand operation; the subway is left-hand operated. The NYSR's Sodus Bay interurban, originally intended for subway use, was abandoned before the subway was opened for service. A tortuous run—thirty-one of its forty miles through public streets—its entry into the Rochester subway group would have speeded up its painfully slow schedule.

Once the subway was completed, speeds up to 50 miles an hour were maintained. Abandoned Sodus Bay cars managed the early traffic loads but these were supplanted by former Rome-Utica-Little Falls interurban trailers, motorized and equipped for fast operation. These cars were single-ended with double center doors on the right side, the left side being *blind*. For the ten years after the opening of the subway this type of car served all passengers.

MOST unusual feature of the Rochester rapid transit and industrial subway is its left-hand operation—one of the few, if not the only, example of European left-handed railroading on this continent. Certainly no one in his sane mind would install left-handed operation in an American subway unless there was an important reason. Apparently the answer lies in the construction as originally authorized by the city. All stations were placed between the tracks with stairways leading down from overhead bridges stretching across the right-of-way at intervals.

This plan would have been adequate for any car type except that with a blind side, or no doors at all on the left side. But the NYSR interurban lines were all single-tracked and owned only single-ended cars with blind sides. If run in a right-handed fashion, they could not pick up passengers at the center-isle stations, since all doors would be on the outer sides of the stations. In order to use the Rome-Little Falls single-ended interurbans left-hand operation was a necessity. And it is

in use today, even though more recent cars have supplanted the original models. These, too, are blind-side interurbans.

Ninety-pound rail is laid in the subway and rock ballast continues for the entire length. Wire is strung in catenary fashion and the overhead supporting bridges are spaced 300 feet apart. The term "subway" is a misnomer here. Eight of the nine miles are out in the open, in a depression made by the canal bed. At various points it resembles a first-class interurban line of years ago. Headways, originally half-hour, decreased as the line became more popular and its dependability proven.

But except for the interurban cars that entered the subway from the surface, only one attempt was made to utilize the subway as a speedy entrance into Rochester for surface coaches. This was achieved via a ramp connecting the subway with a switchover for the Dewey surface cars. For years this was the only surface operation of line cars in the subway, for soon after the canal line was opened the interurban lines began to disappear.

The Rochester & Eastern division of NYSR quit on July 31, 1930, the RL&B on April 30, 1931 and the Rochester & Syracuse ran its last car in the subway on June 27th that same year. As far as the interurban lines went, their abandonments defeated the purpose for which the rapid transit route was intended but rapidly the industrial use of the freight tracks made up to a great extent for this loss of interurban traffic. The same old equipment was used in the subway until 1938 when ten steel interurbans were purchased. These cars were the last used on the Rome-Little Falls interurban, the Utica Division of NYSR.

When that line quit in 1933, the cars were switched to the suburban run between Clinton and Utica until the Clinton line discontinued service in 1936. They were then stored in the Utica barn, emerging in 1938 to be transported to Rochester. Due to their higher speed ratings, the introduction of the steel cars cut down schedules and older cars were relegated to the Dewey Avenue subway-surface line for operation at rush-hours only, with occasional tripper service. The newer cars had multiple-unit control. They were, and still are, operated in trains in rush hours.

ON August 2, 1938, the New York State Railways at Rochester were reorganized into the Rochester Transit Corporation, and since that date have been operated as such. The remaining NYSR rail divisions at Syracuse and Utica were similarly changed into separate organizations in the next five years. The shift in management at Rochester did not affect the subway operation. But the final changeover of all rail lines on surface streets to buses brought about the end of the Dewey subway-surface line, the outstanding example of a surface line using the subway for quick entrance into Rochester.

Dewey Avenue cars always ran directly downtown in city streets, except for the rush-hour tripper cars using the fast short-cut. Just why the Rochester Transit Corporation—or the city—did not wake up to the tremendous value of the underground line and feed the rail routes into it at the numerous intersections will never be known. Since surface rail lines were shut down the bus services replacing them have discovered that mass transportation within a city is no picnic. Crowded streets and slow speeds have been the rule. Packed buses ignoring sidewalk stops have increased the passengers' woe. Yet there has been no attempt or public demand to lengthen the trackage of the rapid transit line—a system which could feasibly absorb heavier loads.

Several years ago a plan was suggested for the extension of the subway at its easterly end into the city of Brighton. A second—and more likely extension—would bring rails to the Kodak Park section of the city, two miles northward, tapping the large Eastman-Kodak plant which is now insufficiently serviced by busses.

This latter plan would call for the electrification of one mile of New York Central or Buffalo, Rochester & Pittsburgh

trackage and one mile of new right-of-way track over ground not being used—a most economical project. At present, the Rochester *Democrat & Chronicle* is heading a campaign for the subway connection with Kodak Park.

Rochester's freight service via city-owned rails is handled by two locomotives and one gasoline engine. Total trackage is nearly thirty-five miles, although the subway run from end to end is only nine miles. The balancing speed of interurbans is at forty-five miles per hour but the schedule allows twenty-three minutes for the run.

Former Rochester & Sodus Bay 170. The R&SB 40-mile line became a part of NYSR in 1909 and its cars passed to the Rochester Transit Corp when R&SB was abandoned. Unsatisfactory for subway operation, 170 and mates have long since been scrapped

With twenty-two stations along the line, average speed is twenty-two miles per hour, stops included. And strange as it may sound, the Rochester subway crosses the Genessee River while running underground. At this point, wide Broad Street is above the tracks with the subway at middle level. The old Erie canal used also to span the river here near the center of Rochester.

Newark's (N.J.) city-owned subway, operated by the Public Service streetcars, is similar in some respects to the Rochester line. It, too, is laid in the bed of an abandoned canal, the Morris Canal. But the Newark line is only a short electric and handles no freight, serving as only a feeder for a few city lines into the downtown section of the city.

Today, Rochester's subway is well-kept and well-equipped to do an immense job in the transportation field—if its owners give it a chance. Few people living in Rochester will forget the winter of 1944 when the buses were locked up in their barns for several days while the electric cars ran along on schedule in spite of the heavy snowfall. Residents walked for miles to reach the subway, in order to find transportation downtown. Though they had already seen thirty years of faithful service, the big, steel interurbans proved the value of rail transportation when weather conditions brought bus service to a halt.

Rochester's city planners, we hope, will remember this, too. Although passenger traffic is just holding its own, freight carried in carload lots only is providing encouraging revenues. Carrying charges cut into the profits rather heavily, but this need not be. Perhaps before too long the transportation demands of the City of Rochester will be met by full use of its potentially great rapid transit and industrial railway line.

Roster

44-68 (even numbers only) Steel m.u. interurbans, single-ended, built by Cincinnati Car Co., 1923, for NYSR's Rome-Little Falls line

2006-2010 Wooden center-door, single-ended cars built by Brill, 1912. Originally ten-car series (even numbers 2000-2018) built as trailers for NYSR Rome-Little Falls

014 Single-truck rotary plow, former Rochester & Eastern

0105 Line car, Sodus Bay No. 105, built by Jackson & Sharpe

0200 Single-cab motor Differential flatcar, wing plow attachment

0205 Wooden freight motor, ex. No. 205

0214 Single cab flat motor car

0220 Single-cab motor Differential dump car
0330, 0331 Differential dump car trailers
0343 Wrecker, former Sodus Bay express car
2002, 2006 Flatcar trailers, ex. passenger cars, same numbers
L-1 Steel 1200-volt locomotive, built by GE, 1928
L-2 35-ton gasoline locomotive, Plymouth, 1928

(*Note:* In addition ten ex-city cars are stored in the subway but have never been used since transfer to the underground in 1941, after abandonment of surface lines. They are Nos. 614-617, 620, 623, 627, 628, 638, 639; built by Kuhlman Co., 1907.)

(The assistance rendered by the Rochester Chapter of NRHS in preparation of this roster and article, is appreciated.)

Carbarn Comments

Steve Maguire

RESPONSE of readers to *Twilight of the Interurbans* in our July issue, was both strong and voluminous. Some called it too pessimistic; a few others, too optimistic. We even got in trouble with steam fans who objected to us saying the North Shore *Electroliner* schedules gave the competing Milwaukee *Hiawathas* cause for envy.

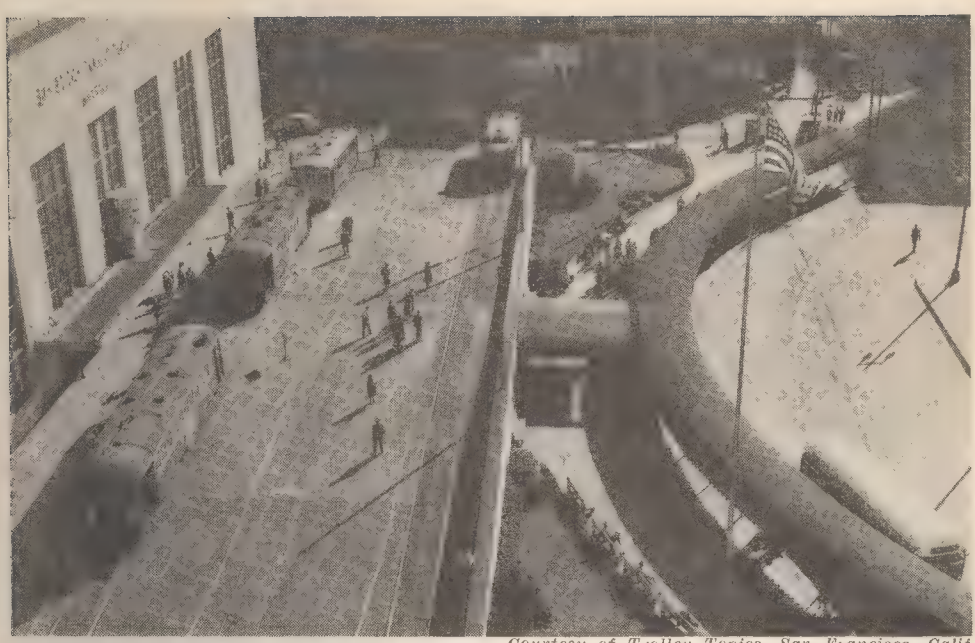
"Brother, either you just don't know what kind of schedules the Milwaukee offers," writes Jim Scribbins, 1609A West Center St., Milwaukee 6, Wisc., "or else you tell taller tales than the fellows who used to shoot the bull in 'True (Tall) Tales of the Rails!' There is hardly any comparison between the schedules of the two lines, much less any envy on the part of the Milwaukee Road of any North Shore schedule. The *Hiawathas* make Chicago in 70 minutes while the standard flyers make it in 80 or 85 minutes. You can see how those times compare with the 114 minute runs of the *Electroliners* before they went out of service due to the strike."

Bill Vigrass, 1494 Cohassett Ave., Lakewood 7, Ohio, questions our prophecy that Pittsburgh Railways will eventually abandon the long interurban runs to buses, in spite of the fact that this company is now replacing all cars with new PCC interurbans. "I wish you'd print a résumé of the happenings in Pittsburgh in your column," says Mr. Vigrass. "Many fellows around here who know nothing of the PRYS say, 'Maguire must be *nuts*. He says the interurbans will quit and here they are putting new cars on the lines.' Without any other explanation this appears logical. To stop such misunderstanding you should tell them that the S.E.C. has recommended that the Court order the Philadelphia Company to sell either the Duquesne Light & Power or the Pittsburgh Railways. If this is done, PRYS may lose interest in the electric operation.

"In addition," he continues, "the Court has ordered an impartial survey by engineers as to whether the bus has been retarded in development by the railway company. This feature was instigated by a petition offered by City Solicitor Arlene X. Alperne. Who is behind her in this unexplained move remains a mystery at present; but probably most readers will draw the same inference."

Still on the subject of Pittsburgh Railways, Dick Bowker, 102 Woodside Rd., Pittsburgh 21, informs us that as soon as the next 100 PCC cars are delivered, twenty-five will be placed on interurban runs substituting for older 3700 and 3800 class cars. At present the Washington line is all-PCC operated, older cars serving the Roscoe run. Track on the interurban lines is too expensive to replace, Dick was informed by PRYS Trustee Fitzgerald. The best remedy under present circumstances is to replace the older, heavier cars with smoother, lighter PCCs.

"I liked your issue on the interurbans," says Bob Richardson, 477 E. Market St.,



Courtesy of Trolley Topics, San Francisco, Calif.

Key System Transit lines operate Trans-Bay interurbans from Oakland and vicinity into Bay Bridge Terminal, *above*. On Mission Street, *extreme upper right*, are the general offices of Western Pacific

Akron 4, Ohio, "but I think you won't have much better luck than Holden did in 1937. My own impression of the interurban future is symbolized by the brevity of your list of *all* interurbans—a rather pathetic handful, isn't it? As for myself, I'm happy they lasted even as long as they did, long enough for me to see and ride the cars. Just like Texas Electric Railway. I hate to see it go but I must admit that it has outlived its day since it was not modernized to meet changing times, particularly as to safety."

Felix Reifschneider, Orlando, Fla., writes that when Mr. Holden's article was published in 1937, he wrote an answer to it, inferring that Holden was all wrong in his optimism. "As I recall, I don't think I ever sent it in for publication," comments Mr. Reifschneider. "Figured they wouldn't use it anyway. But it was apparent to me then that Holden certainly had no crystal ball, since it didn't take a genius to see that many of the lines he described so proudly were on the way out. As I recall, one line he predicted would last forever, had an application for abandonment pending at the time the article was written.

"Of course, we all regret the passing of the interurbans. They provided excellent transportation. But, as you stated, most of them are gone, and what can anyone do about it now?"

Not entirely unexpected, in view of our own predictions, is the present effort of the bus operators to abandon the Milwaukee-Waukesha interurban run. In this particular case, the effort has been met with general disfavor from the press and the public. The line is so located and constructed that no competing bus service could compare with the railway which comes close to the center of Milwaukee on its own private right-of-way, saving considerable time over highway traffic. We doubt that the owners will have the nerve to proceed with this plan, or that the cities of Milwaukee or Waukesha would permit any such change.

* * *

ELSEWHERE: Branchville-Beltsville shuttle line of the Capital Transit Co., operating at the outer end of the busy

Milwaukee Electric Number 111 in downtown Milwaukee, just before entering the rapid transit speedway enroute to Waukesha

route to Hyattsville, Md., will remain in operation, according to Stanley Crews, of Lawrenceburg Hotel, Lawrenceburg, Tenn.

The application for abandonment of this route without even buses to substitute was recently turned down by the Maryland P.U. Commission.

Norfolk, Va. car lines of the Virginia Transit Co. are now down to the Ocean View-Granby lines, the South Norfolk route having been bussed on May seventh. The remaining lines will probably be gone by the time you read these pages, Mr. Crews thinks.

Georgia's last interurban line, the Stone Mountain route of Georgia Power Co. has been abandoned, writes Elmer Braswell, 1581 Melrose Dr., SW., Atlanta, Ga., who states that the few rail routes remaining in Atlanta include the North Decatur line Atlanta's last two-man route.

THE Cedar Rapids & Iowa City interurban line in Iowa is in the news again. This alert and efficient road will build a 3½ mile extension to a 5 million dollar REA powerhouse being constructed outside of Cedar Rapids, reports Adolph Heinemann, Middle, Iowa.

Mr. Heinemann comments on the fact that the new multi-million dollar powerhouse will be built close to the Rock Island and the North Western steam roads, yet the interurban line over three miles away has been chosen to handle the hauling business. Reason seems to be the fact that Crandic purchases its electric power from the Iowa Electric & Pwr. Co., which will operate the plant as part of its power system.

* * *

PHOTOGRAPH showing two ex-Indiana RR freight motors converted to Diesel operation by an outfit in Ohio, is sent to us by E. M. Neff, 1515 Maryland Ave., Springfield 20, Ohio. Mr. Neff tells us that the Greenville Mfg. Co., of Greenville, Ohio, converts electric locomotives and freight motors to Diesel from over-

Greenville Mfg. Co.'s ingenuity turned ex-Indiana R.R. cars 751 and 714 into functioning Diesels for modern Southern Indiana Ry.

Photo from E. M. Neff

head operation. The equipment showing in the view sent us, are Baldwin-Westinghouse locomotive 751 of Southern Indiana Ry., and freight motor 714, of the same road. Both of these cars were earlier Indiana RR equipment, which remained in operation on a short segment of track after abandonment of the IRR system in 1941. The Southern Indiana Ry., as the line was known after 1941, went Diesel two years ago.

Upon abandonment of the Cincinnati & Lake Erie RR in 1939, a number of their freight motors were Dieselized and sold to various lines. John J. Keep, 84-19 168th St., Jamaica, N.Y., informs us that one of the ex-C&LE motors, numbered 647, is now operating less than twenty-five miles from Times Square in New York, hauling carloads of sand at a top speed of fifteen miles an hour over the Long Island sand dunes.

* * *

ONE of the more inaccessible trolley lines for U. S. railfans is the narrow-gage Newfoundland Light & Power Co. at St. Johns, N.F. Among the few visitors to this little outfit is W. E. Robertson, 711 Eighth St., Wilmette, Ill., who reports that the railway cars will give way to trolley buses next year. Operating eight passenger cars, all four-wheelers similar to Birney cars, this 3-foot 6-inch gage line is the only one in the entire Dominion of Newfoundland. The total length of track is only 3½ miles.

Before and after, or how to eliminate that middle-aged sag as shown by an old- and a new-type articulated in Rome, Italy. Number 5083, *at left*, with a bow-type trolley and accordion-pleat vestibule on either side of a suspended middle section. All such folderols are eliminated in the sleek 7003, *below*; but most striking improvement is a third truck to corset that unsightly bulge. Judging from those automobile-less streets, neither had much to fear from competition; slimming down was due more to pride than to policy

Photos fom Tony Kozla, 628 N.W. 3rd Ave., Ft. Lauderdale. Fla.

Just Express It

By FRANKLIN W. BALL

ON FEBRUARY 23, 1839, a young man carrying a carpet bag boarded a Boston & Providence train at Boston. Riding trains was no novelty to him for he had been a conductor on the Boston & Lowell Railroad before chucking his job to initiate a business new to America. He was William F. Harnden, the "original express man," and his carpet bag was the "original express car."

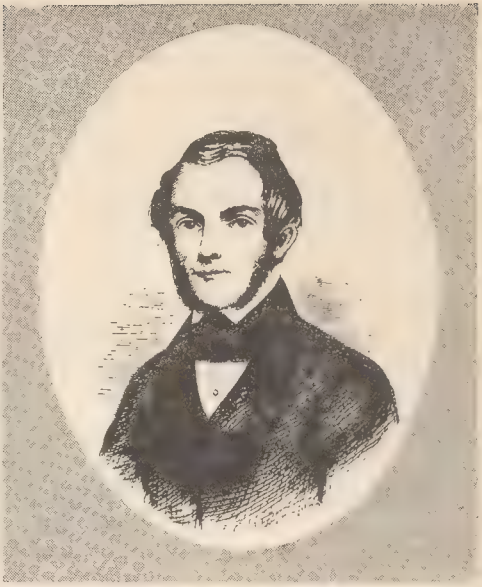
Today the Railway Express Agency handles 20,000,000 shipments annually. It uses 200,000 miles of railway lines connecting 23,000 towns and cities, 12,000 miles of sea routes, 16,000 miles of motor routes with 15,000 motor vehicles, and over 51,000 miles of airways connecting 375 airport cities. For this service the

shipping public pays the Agency $400,000,000.00.

The business originated by a 26-year-old New Englander over a hundred years ago plays no small part in solving the transportation problem of the nation.

Express service of a kind began very early in America. Mail carriers of Colonial days sometimes derived as much from "off the record" deliveries as they did from salaries paid them by the King. Stagecoach drivers carried letters in their tall hats or thrust heavier packages under seats or packed them into specially built boxes. One New England driver blamed his baldness on the fact that he had so many letters to deliver. Stage drivers were also asked to transport bundles of currency and valuable papers from bank to bank. And thousands took advantage of a friendly neighbor in the early days to send their express packages.

When the stagecoach was gradually relegated to its place among American antiques, the men who rode the passenger trains took up where the stage driver left off, and for many years railroad officials looked with tolerance on their employes' private handling of express packages. The



The service founded by William Harnden, *above*, has utilized all the means by which men and things can be moved. The drawing, *below*, depicts the double adventure of this type of transportation. On April 15, 1868, the jaunty *Pembroke*, wearing her name in scarlet on the tender, left Concord, N.H., enroute to Omaha, hauling 30 red Wells Fargo coaches on 15 flatcars and carrying harness and brasses in the maroon boxcars

All photos from Steve Canton, Railway Express Agency

Type of rig used by express companies around 1875. Predecessor of the horse-drawn wagon was the hand-cart still in use for local deliveries in 1840

officials were primarily interested in heavy freight and in passenger traffic and did not dabble with the trivia of small shippers. Most conductors added several dollars monthly to their incomes by delivering letters and packages. Many early trainmen formed the habit of buying fresh country produce along the line at small waystations and hauling it express free into the city terminal where it could be sold at a profit. It was not unusual for dealers in farm products, particularly in the New England states, to meet incoming trains to buy supplies from trainmen. Some even scheduled appointments and left orders with the trainmen for butter, molasses, eggs, and so forth.

Soon other enterprising men, not trainmen, saw the chance to build up a lucrative business from package carrying. Several of these made cash arrangements with the railroad companies, and paid the line a percentage of receipts in exchange for transportation for themselves and their packages. They used satchels, carpet bags, or had specially built boxes for the items entrusted to them. Silas Tiler, one of the earliest businessmen of this type, soon found it impossible to transport the valuables entrusted to him in his hands or a box. So he rigged up a four-wheel trailer and tied it to the rear car of the Boston & Lowell trains. It was a common sight in 1835 to see him seated in the door of the last coach, watching his swaying carriage loaded with package freight as it followed through the Massachusetts

Harnden Express Office, 74 Broadway, in 1858, 13 years after its founder's death. Thompson, Livingston & Co., later absorbed by the Boston branch of Adams Express, took over the Harnden Co. in the '60s

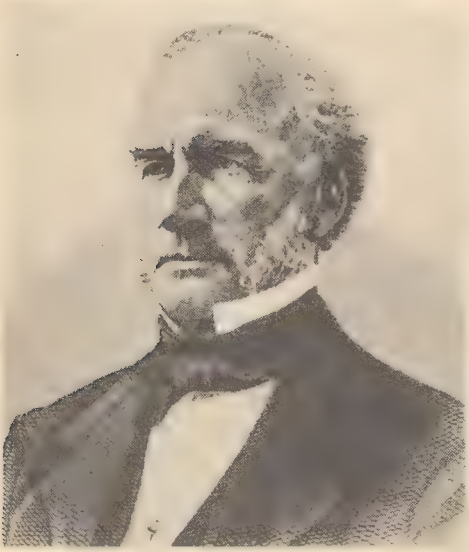
REA, descendant of many "express-it" organizations, exhibited this Wells Fargo Stage Coach at the New York World's Fair and again, last summer, at the Chicago Railroad Fair

countryside. His successor, W. C. Gray, added the services of a bank messenger to the growing business.

This was the express situation when William F. Harnden formed the first bonafide express company. His service was designed for the business men of Boston and New York and his route went first by train, then by steamboat, then by stage and finally, for a short distance by private carriage. He guaranteed delivery of packages, crates and valuable papers. Soon, he established agents in other cities—Alvin Adams, Henry Wells and William Fargo. His New York agent was his brother, Adolphus, who was lost with 148 undelivered letters on the steamboat *Lexington,* in New York harbor in January, 1840.

The same year Henry Wells, Harnden's agent at Albany, New York, suggested that he place agents in Buffalo, Cleveland, Chicago, and other Western cities. Harn-

William G. Fargo, partner of former Harnden agent, Henry Wells, who created a New York-Albany-Boston triangle against which rival eastern companies couldn't compete. When Wells left Harnden to create Pomeroy & Co., former Auburn & Syracuse railroader Fargo became his agent, then partner in a concern devoted to expansion of service westward



Alvin Adams fought Wells' American Express in the West with a San Francisco office to service the Gold Rush. American Express conquered Adams with Wells Fargo. In the South, Adams merged with Southern Express, which became part of ARE in 1918

den wrote back: "If you choose to run an express to the Rocky Mountains, do it on your own account. I choose to run an express where there is business. Put a people there and my express will follow." In 1852 Wells accepted the challenge. The history of the West couldn't be written without the Wells-Fargo Express.

Other rivals on the Atlantic Coast rose earlier. About 1842, Harnden wrote: "Burke and Company's Express began running yesterday. They did not have quite a hatful of packages." The "company" was Alvin Adams, who bought Burke's interest after a few months. Adams boasted a million dollars capital fourteen years after the service was formed.

By 1844 more than 40 express companies were operating in or near the city of Boston. A lot of them were of the old one-man type, operated by someone who rode trains regularly and lugged packages whenever he could get them. It was still not unusual to see people in New England passenger stations with small packages in their hands asking, "Who goes to Newcastle? or Providence? or Lowell, Hartford, New York, or New Haven?"

Through the years consolidations lessened the number of small companies, and as railroads advanced south and west, express service kept pace with the progress of the rails. On all railroads of importance it became an established business.

Wherever the rails did not reach the lumbering stagecoach carried express as well as passengers. There were regular express coaches devoted to package hauling while other coaches merely carried an express box. When the railroad reached St. Joseph, Missouri, it was evident that some method of communication was needed other than the slow-moving covered wagon. In the spring of 1860, little Johnnie Frey, the first Pony Express rider, threw a leg across a lively California mustang and raced out across the prairies toward Sacramento, California. "A most foolhardy adventure," many said, but Frey got through in six weeks less time

Advertisement of June 2, 1841, was a piece of bravado committed in the face of United States Postal agents investigating the new, cheap service on letters and small packages and seeking legal grounds to outlaw the young companies. Court Street (see third line of ad) was the expressman's haven—at least 42 fledgling companies had headquarters there and five, of which Harnden's was one, made joint use of the same back room at No. 8

BOSTON TIMES.

VOL. X. NO. 1307. WEDNESDAY MORNING, JUNE 2, 1841. PRICE ONE CENT.

Co., at Lewis' wharf. tf my28

NEW YORK DAILY PACKAGE EXPRESS
HARNDEN & CO'S PACKAGE
EXPRESS will leave their Office, No 8 Court Street,
for New York, DAILY, via Stonington, at 3 1-2
P. M.
Packages received at the Office previous to the above named
time will be sent on same day.
N. B. By leaving notice at this Office large Packages will be
called for. tf y mh 2

HARNDEN'S EXPRESS. We were yesterday indebted to Mr Harnden, for the Philadelphia U. S. Gazette of Monday. He will please accept our thanks for the same.

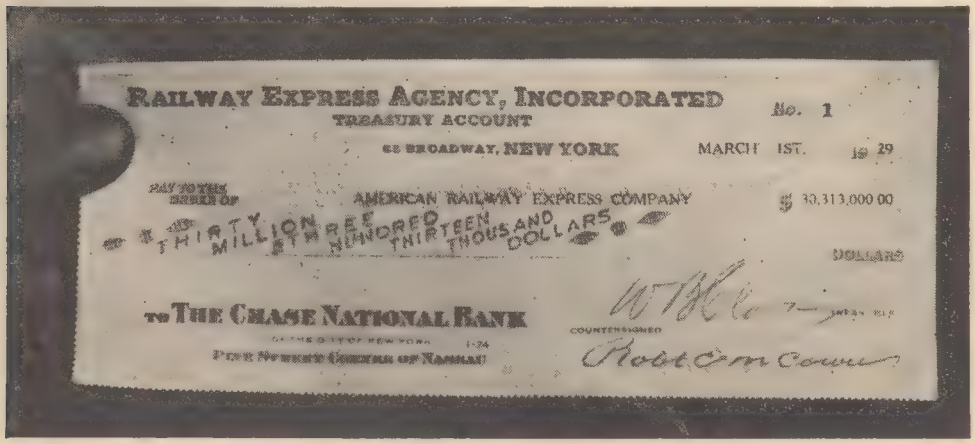
THE —Capt. —of the Masul

Mammoth-summed check below was result of the amalgamation of all companies into American Railway Express during World War I and the subsequent realization that express movements, largely or wholly dependent on rail transportation, should rightly be regulated by the carriers. Private stockholders, most of them former coupon-clippers in Adams, American, Southern and Wells Fargo, split the 30 million 300 thousand dollars

than was necessary to travel the same distance in a covered wagon. The early rate was $5 for one-half ounce; later, for the 2,000-mile journey, the rate was cut in half, and eventually government subsidy lowered it to $1.

Early settlers for years outran the railroads between Missouri and California. The Wells-Fargo Express served this territory, at first through arrangements with stage companies, but before long owned and operated their own coaches. A regular network of lines was established among the various towns and settlements. Then, gradually the rails threaded the West, and the romantic stage was supplanted by an agency able to give swifter service. The various big companies, the Adams, Western, Great Northern, Northern Pacific, National, Pacific, and others took express service aboard western trains and even the famous Wells-Fargo climbed aboard the cars and carried on profitably.

Shortly after World War I, when the government took over operation of railroads, all the great express companies


RAILWAY EXPRESS AGENCY, INCORPORATED
TREASURY ACCOUNT
No. 1
65 BROADWAY, NEW YORK MARCH 1ST. 19 29
PAY TO THE ORDER OF AMERICAN RAILWAY EXPRESS COMPANY $ 30,313,000 00
THIRTY MILLION THREE HUNDRED THIRTEEN THOUSAND DOLLARS
DOLLARS
To THE CHASE NATIONAL BANK
COUNTERSIGNED

Moving into the present with REA means loaded electric station trucks rolling out for transfer to fast express cars and the split-second timing necessary for brief station stops

Modern express has its control tower at REA's Long Island Express Terminal. View from the "Crow's Nest", *below*, allows the general agent and his announcers to command the operations of 1700 employes by microphone

"Waybill coop", mobile office for quick handling of small express packages and the most modern of REA devices, since it antedates and answers Robert Young's suggested parcel pick-up, designed to give all small package shipments back to the Post Office

merged their facilities at the direction of the Railroad-General. The result was called the American Railway Express Company. It continued to operate as one company after the war ended and private ownership again directed the traffic and business of the rails. Then, in 1929, the American railroads bought out the mammoth company, and for the first time since rails were laid the railroads owned and operated their own express company.

The Railway Express Agency assumes all responsibility for any shipment while in transit. There are 23,000 express offices scattered throughout the country to facilitate this service.

Harnden could never have gotten this into a carpet-bag. During racing season, horse cars account for a good portion of REA's more than 444 shipments per minute

A 3,000-pound elephant has been sent by express 1,000 miles and it has been rightly said that express service and refrigeration combined have changed the eating habits of the nation. K. N. Merrit, General Manager of the Public Relations Department of the Railway Express Agency puts it this way: "Cheap jewelry and valuable gems, house dresses and expensive gowns, first readers and rare editions, baby chicks and proud gobblers, cabbages and caviar, oranges from California and Florida and apples from Oregon and Washington, and fish that move so fast that when you eat them the tang of the sea is still in them. Shoes and stockings, silks and satins, cats and dogs, horses and mules, cloaks and suits, bread and butter, cheese and crackers, coats and vests, collars and ties, chickens and eggs, rugs and carpets, tables and chairs, lamps and shades, and shirts and shorts—all are moved by railway express."

The Railway Express Agency's predecessor "took to the skies" in 1927. In that

Scene from window overlooking entrance to Long Island Express Terminal. Four loading platforms handle 100,000 daily shipments; the six tracks hold 75 railroad cars

Mausoleum erected in Mt. Auburn Cemetery, Cambridge, Mass., by employes of the express companies in 1856. In 1945, veterans observed the 100th anniversary of his death with a general holiday

year it had four air lines with a total mileage of 4,450. Today the REA has 19 lines reaching 51,000 miles. Express may be sent by air from New York to Chicago in a little over four hours, and overnight deliveries are provided in coast-to-coast service. Air transportation is the answer to the businessman's prayer for ultra speed.

But the several thousands who are in less haste will continue to use the iron horse for many years to come.

Rails at Chow

AWAY BACK around 1880, Bob Burdette, humorist-editor of the *Burlington Hawkeye,* quipped, "An Illinois man is said to have invented a railroad lunch-counter sandwich composed of bread and meat. Persons who have tried it consider it superior in quality to the ordinary wood-and-leather variety commonly served in such places. It has not yet come into general use."

And the stool pigeons of long ago—railroaders and others who took a considerable percentage of their meals while hunkered on top of the high perches whose summits were shined to a glossy polish by breeches-seats which wore out all too quickly—those fellows would have been willing to swear that the new sandwich mentioned didn't come into use in most places for many years afterward.

There were no nice, low, padded chairs

By
ALVIN F.
HARLOW

Maybe There Were Nails in the Pies Served at Early Rail Lunch Counters, but — as the Waitress Said — They Weren't Rusty

at the lunch counters then, with restful backs, springs underneath and a place to put your feet without hooking your heels over the rungs. The hard, high stool itself and the position it enforced seconded the murderous food in producing those various digestive ailments—probably stomach ulcers among the rest, though they hadn't been discovered then—which were classed under the general head of dyspepsia.

That's where and how my father acquired his case of it, which he never quite got rid of.

Sandwiches—ham or more rarely cheese—pie and doughnuts, with coffee and milk, were the staple grab-it-and-git items in the railroad lunchroom, just as they are today. A platter of dismembered fried chicken and, in some regions, another of fried rabbit supplied variety for those not too delicate to gnaw bones in public. And generally all at a nickel a throw—for railroaders and properly identified local citizens, that is; the poor devils who rode the plush seats had to come across with a dime per item.

They usually figured that anybody who could afford to travel was either a "drummer"—who padded his expense account, anyhow, and might as well be given the shakedown—or a plutocrat who wouldn't mind the double tariff. Short orders, thrown together in the smaller joints by the counterman who might or might not know how to cook, were usually confined to ham and eggs, though some swells ordered small steaks, which might run into money, maybe fifteen or twenty-five cents—for the railroadman, that is. For passengers it was double, of course.

Most travelers wouldn't have objected greatly to the Waldorf-Astoria rates if they could have gotten good grub for their money. The big city terminals usually did pretty well by you, but most of the smaller cross-roads pie dumps were really pretty terrible.

South Berwick, Maine, for example, in the 1870s was no worse than the others, from what I can learn; just typical. It was at South Berwick in those days that the old Eastern Railroad and the Boston & Maine met, but didn't cooperate. Every traveler between Boston and Portland had to change cars there, and it seemed part of the book of rules that a train on either road must get out of town when the other train was heard coming, leaving a passel of the maddest passengers in the world stranded for hours. Edmund Vance Cook, a popular newspaper poet of the period, wrote a jingle about it, paying his respects to the eatery. The first stanza ran thus:—

"Slow and woeful Junction Town
Where devils laugh and angels frown
To see a passenger set down;
Where trains run only with a view
To help a restaurant or two;
Where rusty rails and barren boards
Are all the point of view affords.
But oh, the barren board of all
Is that within that eating stall!
Yes, stall I said, and well-deserved"

Utica, N. Y., was another place whose groaning board had a bad name in the '80s and '90s. Chauncey M. Depew, better remembered as a politician and witty speechmaker than as a railroad brass hat, was president of the New York Central then and a patron of the Utica eatery once wrote him this suave but deadly note:

"Dear Mr. President:—You are the finest after-dinner speaker in the world. I would give a great deal to hear the speech you would make after you had dined in the restaurant in your station at Utica."

I have been unable to find any record of the usually glib Chauncey's finding anything to say in reply to this satirist.

But of course these were merely two lunch rooms which happened to have had something clever said about them. There were hundreds of others in the country—North, South, East and West—that were just as bad or maybe worse. That's why the nation's pulse stopped when Fred Harvey conceived the brilliant idea of running railroad eating houses where real food was served.

THE Late Victorian lunchroom ham sandwich was a favorite subject for newspaper jokesmiths. It must have been terrible on both sides of the Atlantic for Dickens, in his "Mugby Junction" skit nearly a century ago, spoke of the "sawdust sandwiches" served in the lunchroom.

Always a round bun split with a butcher-knife and lightly interiorly-decorated with a small, thin slice of gristly shoulder-meat —politely known in the trade marts as ham—it was stacked for aging with its fellows on a plate under a big glass bell or a dome of wire screen to baffle the flies.

The cook or counterman who could slice ham to paper-thinness and never cut a piece large enough to stick out around the edges of the bun was the man the proprietors wanted on the payroll. Customers frequently had to open the sandwich to make sure there was any ham there. One recalls a fireboy socking himself onto a stool and demanding, "Gimme a ham sandwich, bud; one with some *ham* in it!" To which the counterman, a satirical youth of nineteen, retorted with a perfectly dead pan, "We're makin' 'em now jest with a greasy knife drawed through 'em."

By the time those sandwiches had sat on a counter for a few days in a none-too-busy lunch-room the buns had dried to a sole-leather hardness, as had the timid little slice of meat inside, now turned a deep brown, almost black, sometimes with faint, pretty, greenish shadings. The journalistic jesters had so much fun with it that finally, in 1892, one of them kidded his own brethren on the subject. I don't know who was the author of this piece or where it first appeared, for the papers used to lift stuff from each other pretty freely, not always giving credit. But here it is.

"The man looked at them, heaped up on a plate as he sat at the lunch counter, and finally queried,

" 'Are those sandwiches?'

" 'Yes, sir.'

" 'Railroad sandwiches?'

" 'Yes, sir.'

" 'I've read of 'em. When were they made?'

" 'In 1880, sir.'

" 'Twelve years ago, eh? What kind of meat?'

" 'Ham, sir—ham about ten years old when we put it in.'

" 'Was, eh? Warranted to—'

" 'Produce death, and that within twenty-four hours."

" 'I see. Must be petrified by this time."

" 'Perfectly so.'

" 'Well, I think I'll try one.'

" 'They are not for sale, sir.'

" 'What! Don't you sell sandwiches here?'

" 'Sometimes, sir, but we pick our customers. Have you a card with you?"

" 'Of course I have. There it is, and I'd like to know—'

" 'Sorry, sir, but I can't accommodate you. You are the marine editor of a newspaper, I see, but that won't go here. We sell them only to the funny men, and never two to the same customer. Better try the fried cakes and custard pie, sir. Sorry, very sorry, sir, but you ought to have been the funny man and written five or six columns on the railroad sandwich."

I find a slight flaw in this sketch: the counterman always said, "Sir." It might have happened in the South, however; not in the North.

AND THAT reminds me that when you nerved yourself to eat one of those sandwiches, you wanted something to spread on it to sort of bring the taste up to date, to make you believe you were eating present-day food and not something that had been found in an Egyptian tomb of 4600 B. C. There would be a pot of grocery mustard on the counter with a little wooden spoon or paddle in it, and the container was never cleaned around the edge, where the mustard had dried on it for weeks and months until it was nearly black. But if you traveled South, especially into Kentucky—beware! They scorned —and in many places still do—the so-called French mustard, preferring the old-fashioned, home-made kind, of freshly ground mustard seed and vinegar without adulteration; a compound which makes atomic power seem like a cool breeze.

If you were a northern tenderfoot, you spread it thickly on your sandwich and took a big bite—and then you "riz" right up off your stool with streaming eyes, gasping, "Gimme glassa water, quick!"

You felt as if somebody had poured molten lead on your tongue. Thereafter, you were more cagey with restaurant mustard when eating to southward, though you quickly learned to distinguish between the smooth, brownish-yellow "French" stuff and the English kind, speckled with the tiny brown bits of the mustard-seed hull. Some kindly countermen, sizing you up as a stranger, would—if not too busy—warn you, "That ain't store-bought mustard, mister, it's the reg'lar kind."

Many folks learned to like the high-powered product better; French mustard seemed a little anemic after eating it. And if there is anything that can put zizz into one of those last week's sandwiches and make you forget what you're eating, it's a touch—just a touch; amazing how little is required—of that sprightly product of the old-fashioned garden.

As for lunchroom pie, some little joints with limited imaginations could think of only two kinds, "apple 'n' mince;" not even the latter being available in summer. Others might flaunt as many as ten kinds—apple, all the berries in season, cherry, pumpkin, mince, raisin and various custards. But how few cooks knew how to make a crisp, flaky crust! After trying to chew some of the sad, tough, soggy fabric, you suspected that they kept a roll of glove leather in the kitchen and cut the crust out of that. The art of making good pie-crust is still unknown in many kitchens, even to this day.

Along with this fodder went the sort of coffee you might expect. Those tall, nickel-plated stills of today had just begun to appear in the larger eating-places in the 1890s, and of course that was long before these modern glass contraptions had been thought of. In the lunchroom kitchen there would be just a huge, over-sized coffee-pot known as a coffee-boiler, and into it some freshly-ground coffee was put daily, on top of yesterday's grounds and maybe the day before's, with intent to get all possible value out of a 15-cent package of Brazilian beans. Of course, in such a process, the customer was apt to get grounds in his cup, unless some egg or at least an egg-shell was put into the pot to "settle" it. What such coffee tasted like cannot be described in a polite magazine like this. In one of George Ade's fables a lunch-counter waitress and a drummer are engaged in a joke match, with the girl getting considerably the worst of it, as might be expected.

"Tea or coffee?" she asks, to which he retorts brightly, "Don't tell me which you bring and see if I can guess."

The one flaw I discover in this gag is that I can't remember a drummer or railroader of those days who drank tea. At most little Jimtown Junction lunch-benches, it wasn't even available. They had no tea-bags then, to sousé in hot water and produce the beverage in ten seconds. Since there was so little call for it, many places just didn't keep it on hand. When or if you did crave tea and could get it, it was apt to be a dark, San Domingo-mahogany-colored infusion that could have been used for tanning leather and tasted like it.

Towards the end of the century there came to be ways of avoiding the antique ham sandwich. Some counters would construct a cheese sandwich to order for you, usually Schweitzer, though in some rare places you might get a limburger or even an onion sandwich, made from one of those enormous white onions—I think they came from Bermuda—one cartwheel slice of which would fill two full-sized slices of bread and butter. Eat either one of these sandwiches and you would go away with a breath that would curdle milk at twenty yards.

THEY HAD non-paying guests in those eateries of yore. Most lunchrooms had their doors and windows screened, but you and I know that a fly is the slickest of all living things at evading law and barriers. Hence there were sheets of sticky fly paper hung up in lunchroom and kitchen, though some of the better-informed flies avoided them. We became so accustomed to the sight of those gooey yellow horrors, dotted thickly with dead and still struggling flies, that they didn't

seriously affect our appetites, whatever they did to our health.

The cockroaches which crawled over the counter from time to time were something else again. I recall one place where you couldn't sit for five minutes without seeing one or more of the beasts scuttling hither and yon on imaginary errands. I heard later that they were so numerous in the kitchen that the cook had to fight sometimes to keep them from putting him out of doors. The boss at that place and his one waiter needed to walk only halfway towards you with a plate of chow; they'd send it sliding the rest of the way, to stop squarely in front of you with unerring accuracy. Those fellows would have been aces at the game of shuffleboard.

It occurred to me that if one of those speeding plates caught one of those jaywalking cockroaches en route and crushed its innocent young life out, I just wouldn't be able to bear it. Many people, myself included, ate there only once. If those roaches had only remained under cover, we wouldn't have known of their existence; and they wouldn't have driven their host, their means of support, out of business. But there never was a cockroach yet that had brains enough to stay out of sight.

I was lucky. If one of those unbidden chow-house guests ever got into my portion of food, I didn't know it. But I recall something terrific that happened in a lunchroom once at a junction point where the counter—not a large one—was served in daytime by a woman. She was a widow—always wore black—rather tall, slender and black-haired. She was in her thirties. I suppose, though a youngster of my years was a poor judge of such things.

Her face was attractive, one that had been made for laughter; still it was clouded by sorrow now, save that the quick smile and the twinkle of the dark eyes responded readily to a friendly greeting or a joke. She was liked and highly respected by all the railroaders, and a few veterans who knew her best were privileged to call her Minnie.

I was sitting there at the U-shaped counter one day with a number of rails and passengers between trains all wolfing down our food, when suddenly there was an explosion which could have been worse only if the place had been bombed. With a loud, spluttering *"A-ar-rgh!"* a rather elderly gentleman bounced off his stool with such violence that it fell over behind him with a bang. He continued to sputter and pluck at his mouth. His face was so purple I began to think it was apoplexy when finally he found his voice.

"Of all the infernal outrages in history," he shouted, "this is the worst! I've never encountered anything like it. What do you call that, Madam? With his fork he lifted something from the ruins of his quarter of mince pie.

Minnie's face paled as she looked at it. Smeared with the juices of fruit and meat, it was nevertheless unmistakable—a nail! As I recall it, it was about sixpenny size, one of those square-cut iron nails of long ago.

"I'm awfully sorry—" Minnie began, but the infuriated diner cut her off.

"I've heard of Arctic overshoe heels and bone collar buttons in mince meat," he yelled, "but this is the first time I ever heard of rusty nails being used as an ingredient. What'll it be next—gear wheels, chunks of coal?"

"Take it easy, mister," growled a shack down the line. "This lady ain't responsible—"

"I am perfectly well aware of that, Sir—just as I'm aware that I broke a gold tooth on that nail that cost me thirty dollars." He held it up for us to see. "The cook is responsible for that, which means that his employer is responsible. Where is the manager of this establishment?"

"If you'll see the railroad agent, Sir—"

"Well, they'll pay me damages for this. I warn you, gentlemen," looking around at the rest of us, "that you're liable to find almost anything in your food in this place. When rusty hardware is slipped into mince pie, I shudder to think what might happen."

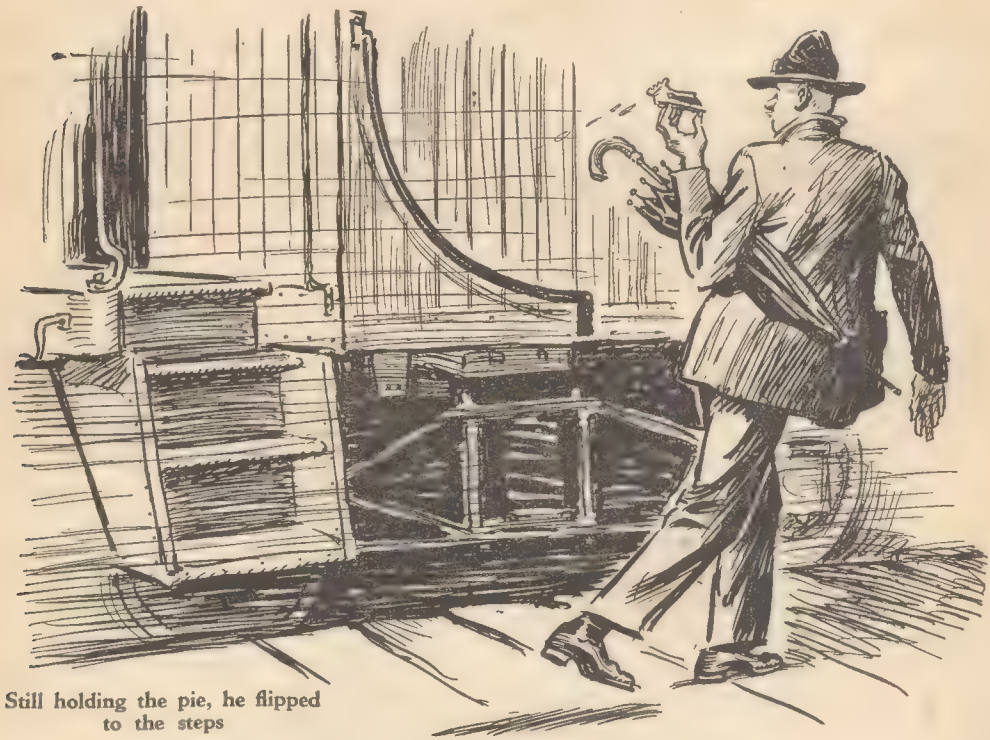
He stamped out and slammed the door after him.

A SHOCKED silence fell upon the room. Nobody could think of anything to say. Minnie's face was troubled as she bent over the vanished diner's plate and poked at the nail with her fork.

"It isn't rusty, either," she murmured, mostly to herself.

But as she turned away with the plate and glanced up at some of us, there was just a suspicion of a twinkle in her eye. After all, a nail in a mince pie was so absurd, so impossible a thing that it had some of the elements of farce comedy.

As I've already said, the large city terminals usually served pretty good, though standardized food and having a rapid turnover, it was apt to be fresh. My most extensive experience with such lunchrooms was in the old Grand Central Terminal at Third and Central Avenue in Cincinnati. During one short period, the raisin pie was a little gritty there, but that phase passed. It was about that time, however, that one day I sat alongside a hard-faced individual with a shaven upper lip and a short chin beard.



Still holding the pie, he flipped to the steps

And an old gentleman, mad as a hornet but unharmed and still a gentleman, blowing up like a fireworks factory, is always funny. Perhaps Minnie was amused, too, by her own small effort to minimize the disaster by arguing that the nail wasn't rusty, after all.

But the incident had hit one youthful stool pigeon right where he lived. Always a bit queasy in the stomach, I eyed my food with suspicion now, and couldn't quite finish eating it.

From certain uncouth noises made by both, I gathered that he and the counterman were acquaintances. Presently he pointed at his raisin pie with his knife, which he had been using as a shovel, and barked.

"You fellers oughta screen your raisins. Take out all the gravel that wouldn't pass through a three-sixteenths mesh."

The counterman, a tough rooster himself, merely gave him a cold, over-the-shoulder glance as he went down the line

a few yards to deliver a plate of ham-and. Returning, he paused with a reminiscent air.

"President Harrison," he said, "set right there on that stool you're on now—no, it was the one at your left—not as much as an hour ago and et a piece of that pie and said it was the best he ever tasted."

"About what I'd expect from a Hoosier Republican," growled the customer, evidently an unterrified Democrat. "Wouldn't know angel food from baled hay—even if you wasn't the damndest liar in the Ohio Valley. I'd hate to be invited to dine in the White House."

"Don't worry about it," soothed the counterman as he hurried away.

My problem when I went up to Cincinnati from my home town, seventy-three miles westward—usually as a stowaway in the express car, with a kindly conductor looking the other way—was to convince the Grand Central lunch-counter staff that I was a railroadman, so that I could avoid paying passenger's rates. Beginning when I was a lanky six-footer of sixteen or seventeen working in the express office in my high school vacations—still regarded by the law as an infant, although able to sling cooped chickens, live calves, crates of peaches and eggs and kegs of beer on and off express cars at high speed while the brains stood with his watch in one hand and the other halfway raised towards the "Go!" signal to the engineer—I was classed on the express company's payroll as porter.

The problem was easy if there happened to be another fellow from home in the city at the same time. He might have no connection whatsoever with railroads, but any boy from a rail nerve center like ours knew a lot of railroad lingo; with a couple of minutes' rehearsing, we could put on the act. As the counterman was setting our food before us, it would perhaps start off like this:

"Where you been? What threw you so late?"

"Freight wreck at Osgood. Eleven cars piled up. They talked of backin' us up to North Vernon and comin' in around by Greensburg, but the super decided against it. Now I gotta double right back on 17—"

By that time the waiter might move away and we could talk normally. When he neared us again, it would be the other fellow's turn.

"Remember Bill Johnson—used to sling baggage on the Bee Line? He rode down in my car from Columbus this morning. He's on the Lake Shore now and likes it fine."

"I wonder what chance there is of gettin' a job up there. Swell road, from all I hear."

"I dunno. Bill says it's awful cold up there along that lake in winter time . . . ." And so on.

When it came time to pay for our repast—for you didn't pay until after you'd eaten—the counterman would lean over and ask us in a low tone, "You boys on the railroad?"

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"Sure!" we would reply, wide-eyed with astonishment at his ignorance. And though our faces must have indicated that the railroads were taking 'em on pretty young, our sandwich, pie and milk would cost us only fifteen cents.

I THINK that the consistently best lunch-counter food I ever ate was found at that little town where I grew from boyhood to manhood—a center from which the steel highways sprayed out in six directions. It certainly served the best pie and the sandwiches were usually fresh, with the ham overflowing the buns and hanging down like drapery. The railroad lunch-stand, a separate building in the middle of the depot platform, hooked up oddly enough with a rival restaurant across one of the tracks in paying the salary of the same pastry cook, who also fried the chicken and rabbit.

A silent, middle-aged, light-colored woman—a quadroon, I think—she had the magic touch with the ten or twelve kinds of pie which those amazing counters displayed. Among them were three heavily-meringued custards—lemon, coconut and a confection which she called cream pie—which dwells in my memory as just about the supreme achievement of pastry. Those who had sampled her wares came back again and again for more.

When I was working in the express office, it usually required one piece of pie about ten a. m. and another about three p. m., in addition to my regular meals, to sustain me through the rigors of the day. And a piece of pie was a real helping then; they didn't butcher a pie into eight or nine thin wedges and sell one of the slivers to you for ten or fifteen cents. They just quartered it—one slash of a knife this way and another one that—and you got a quarter for a nickel.

There is a picture—to the veteran railroader it will not seem important—that was deeply impressed upon my boyhood memory. On a day when I was about thirteen, a dismal day of slow steady rain, an eastbound freight stopped with the engine at the water tank west of our station, while the conductor came to the telegraph office for his orders, under one of those big cotton umbrellas which would weigh four or five pounds when wet and turned a poisonous green with age. He was a big fellow more than six feet tall, with long, powerful legs and large feet; his hair was a sort of ash blonde with a spiky mustache that was nearly white.

As the train got under way slowly, the skipper handed the flimsy up to the cab as it passed him and strolled on to the lunch stand for a taste of our justly-celebrated pastry. He came out in a few moments with a quarter of fresh cherry pie in one hand and that big, furled umbrella —and it was a handful—in the other. He had already had one luscious mouthful of the pie; the pale mustache was stained red and the fingers of his left hand looked as if he had just bungled a link-and-pin coupling. Pausing under the broad overhang of the lunchroom eave, he took another bite. You could see by his contented expression what he thought of the pie.

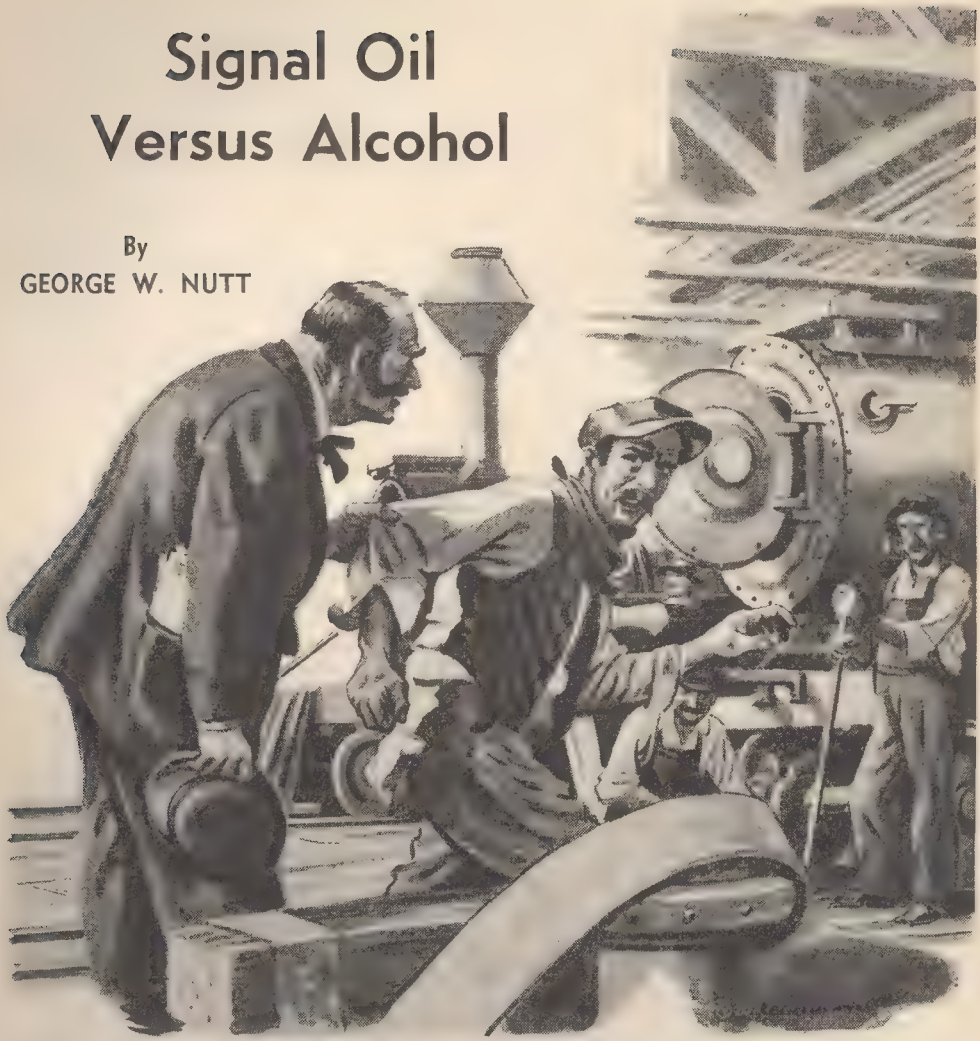
Meanwhile the hogger was getting his forty or fifty loads rolling down the slight grade towards the creek bridge, to gain momentum for the rise on the other side. The speed increased rapidly; as I stood under the depot porch watching, I guessed it to be fifteen—twenty—then it seemed to me that it must be twenty-five miles per hour. Could that big fellow risk hopping aboard a flying caboose from that platform slippery with rain, and with that pie and umbrella? The question didn't appear to give him a moment's concern.

As the crummy finally approached, he balanced the pie on the fingers of his left hand, tucked the huge umbrella under that arm and strolled forth. Taking three vast running strides as he laid his right hand on the long, curving grab-iron, he flipped to the steps as easily as I would hop out of bed in the morning. At the top of the steps he paused for one more delicious bite before he went inside.

You may have your Tom Mixes, Art Acords, Jerry Amblers and who not; I'll take my far more daring cowboys of the rails.

Signal Oil Versus Alcohol

By
GEORGE W. NUTT



"Hey, Jim, come back here and take a drink," the master mechanic said

IN THE latter part of 1884, after a brief session in the machinery department of the old Burlington, Cedar Rapids & Northern (now Rock Island) locomotive shop at Cedar Rapids, Iowa, I was put to work in the small tool room. It was about twelve feet by twenty feet. To my bitter disappointment, there was no machinery in it at all.

Foreman Allen McDuff, who also had charge over the machine work, was a true Scot. He saw to it that his cub did not get lonesome in there or waste any of the company's precious time. My duties were numerous and exceedingly weighty, such as are common in all the trouble-shooting annexes. One not so common one, was that in slushy winter weather I had to go fetch his lairdship's dinner.

All went well till one day after I had gone from the house Mrs. McDuff discovered a trail of BCR&N lubricating oil indelibly stamped on her newly-scrubbed kitchen floor. The next time Mac sent me up for his dinner, he cannily asked me to go to his woodshed and chop the kin-

dling while the Missus was getting the haggis ready. In time, after I had all the cordwood chopped, Mrs. McDuff made him come home for dinner.

One of my duties was to wash the toolroom windows. Because of the exhaust steam, oil and soot from the powerhouse, they were hard to get clean. Cold water and waste would not take the gum off, so I thought of trying signal oil. Mac, watching me one day, was not too impressed with the results I was getting. "What are you using on those windows?" he wanted to know.

"Signal oil, sir," I said.

"How about trying alcohol?" he asked.

When I told him I had none he gave me a slip for a can.

It worked fine, but it had one disadvantage. By the time I had cleaned to the end of the vise bench I was standing on, I, too, was feeling fine from the fumes. A machinist named Billy Poor, working on the end vise, was interested. "George," he said one day, "lend me the drinking cup off of your dinner bucket a minute."

I got it for him and returned to the bench to finish cleaning the windows. Poor asked me to pour some of the alcohol into the cup. I'd made it about one-third full when he hollered, "Whoa." Dousing it with water, he downed the drink.

I stood petrified, expecting to see him drop dead. I thought I'd be blamed. "Man alive," I said, "won't that poison you?"

"No," Billy replied easily, "it's only pure whisky."

"But whisky is red!"

"Well," he said, "they just color it."

I reassured myself by thinking that Poor's brother was a prominent doctor in town. And those were hard times for the man who liked a good highball or a *right guid willee waught*. A real dreadful thing had happened in Iowa: the state had gone dry.

THE SHOP had acquired four hydraulic jacks which had always given reliable performance. Pride of the shop, they were kept in the tool room and were serviced there by a machinist, Harry Darr, who has long since passed on. But around the time I arrived, things were beginning to happen. The jacks gave trouble and we tried all kinds of ideas to try to fix them.

We made a stirrup for testing; I pounded up some glass for Harry to grind pin valves; we tried tripoli, then at last we even considered ladies' face powder. How we were to get that was a poser: at that time it would have been an insult to try to borrow some from the higher strata of ladies, and the lower strata did not use it. Of course, we eventually did get the powder—by strategems better not mentioned in print.

One Saturday afternoon after being tested and okayed by the foreman, the jacks were taken out, ready to raise a Baldwin freight. Monday morning up she went, but didn't rise to where she was supposed to go. One corner jack failed, and the pit foreman hollered to the man operating it to pump faster. The fellows at the other ends got balled up and got in their licks the wrong way.

Mr. Bushnell, the master mechanic, heard the yelling which was not allowed except in the case of imminent danger. Down he came from his office, just in time to help save the engine from going over.

Bushnell ordered the defective jack to the tool room. He directed poor Harry Darr to take the plunger out.

I helped Harry place it in the vise to re-examine the pin valves. Old Dick Bushnell glanced down in the well of outer part and started to holler. "Tarnation, Allen, you fellows forgot to put enough alcohol in the jack."

Mac convinced him he was wrong. Then came the dawn, or so I believe for Bushnell was certainly not fooled later, though he pretended to be.

"Gentlemen," old Dick said with a malicious grin on his face, "do you think signal oil would do the trick?"

Most of them thought it wouldn't work, but it did. Some thirsty floor-side artisan's tonsils missed their weekly lubrication and you can imagine the howls.

Sometime later, an engine frame was brought into the blacksmith shop one hot morning to be welded. During the noon hour a forward-looking helper, mindful of the heat and very solicitous for the health of his fellow craftsmen, picked up a large bucket and meandered over to the paint-shop shanty which housed a barrel of alcohol.

Since the shanty was just the usual burglar-proof building, he just sauntered through the door, filled his bucket and carried it back to the blacksmith shop. There he dumped it into the regulation sanitary water barrel with slough or river ice floating in it. But, brothers, that alcohol was the genuine article—with the genuine effect.

Then the show was on. Old Dick came into the blacksmith shop around 2:30. Bypassing the foreman's office, he started down to where the frame lay to be welded, but never reached it. He noticed a helper swinging at a flatter and missing it, over and over again. Old Dick stopped and backed up to the barrel. Turning halfway around, he poured himself a cupful of supposed water—and he was temperance man.

Bushnell took one swallow, blinked his eyes and drank it. Then he downed another, smacked his lips and never said a word to anyone. He walked up to the blacksmith foreman's office, where Jim Lawler, the foreman, was busy with a blueprint.

"Jim," said Dick, "come out here. I want to show you something real interesting."

Thinking that Bushnell meant the frame to be welded, the Irishman started walking down to the shop with Bushnell. Opposite the water barrel, the master mechanic paused, while Jim continued on towards the frame.

"Hey, Jim," he called. "Come back here and take a drink."

"I'm not thirsty, Mr. Bushnell," Jim replied.

"Well, take one with me anyway," said the Old Man.

To humor him, Jim took the cup and got one swallow down. He was so mad he threw the rest of it out and wheeled about glaring at one after another, figuring on scaring out the culprit. Suddenly Dick Bushnell grabbed him by the arm.

"Hold on there, Jim," he said. "Don't you go pinning this on anyone. But just don't let it happen again."

Old Dick turned on his heel then and walked out of the shops. Jim waited until he was out of sight and then started in to cross-examine his men to find the guilty party.

Did he find him? No, he did not. Furthermore, after he'd cooled off, I would not have wanted to be the one who squealed anyway.

After one more episode the alcohol barrel was securely guarded. Then the great drought set in.

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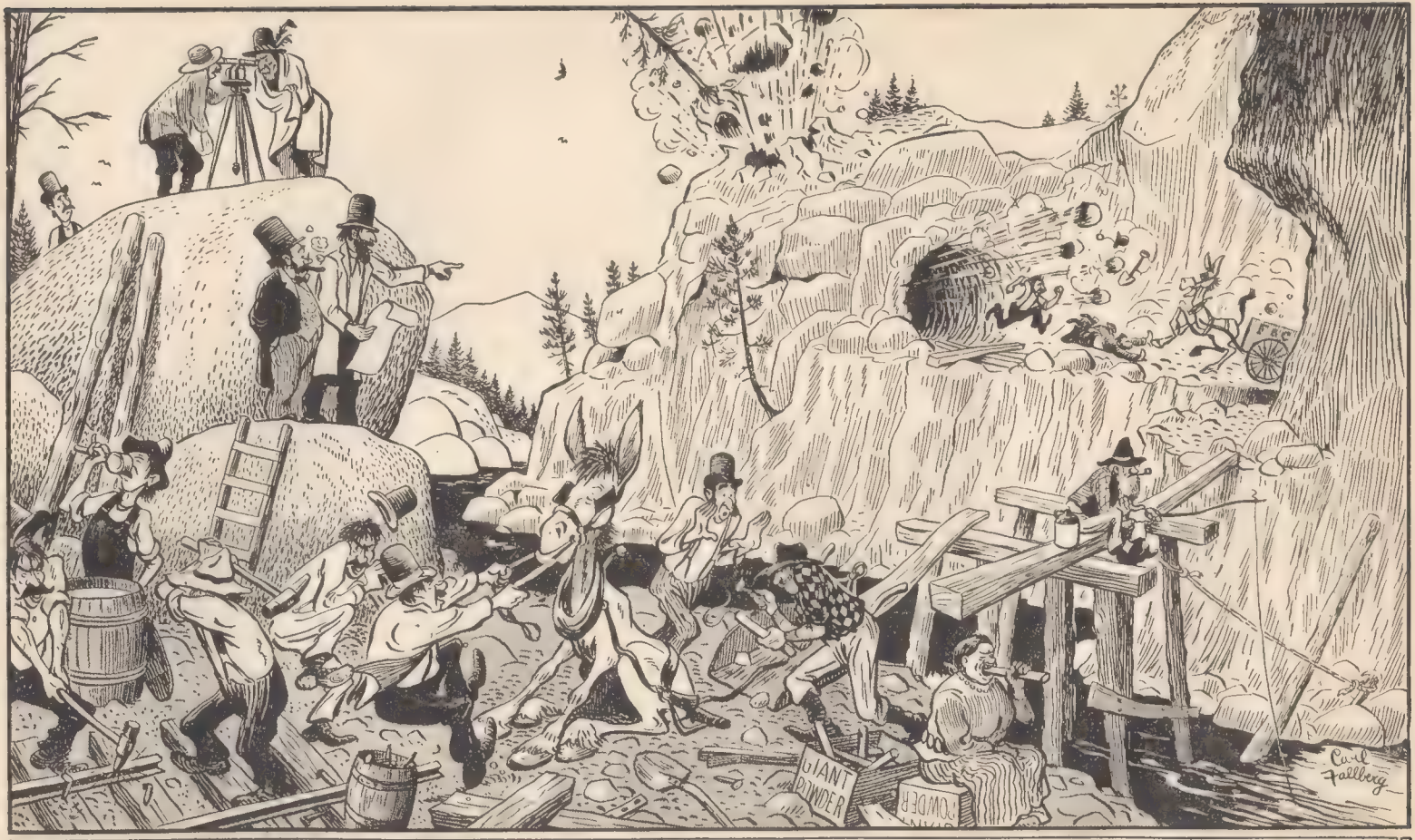


FIDDLETOWN & COPPEROPOLIS RY.

No. 2 Heavy Construction on the Fiddletown & Copperopolis Gets Under Way at Mad River Canyon

by Carl Fallberg

Race Track

Part IV

By GILBERT A. LATHROP

REMEMBER my telling you about a brakeman on the Denver & Rio Grande who did his tail flagging from the inside of a deep cool cave and nearly led us into a rear-end collision? Well, the next time I met this guy I'll call Sandy Boomer it was toward the end of June, when I was called one afternoon for the pile driver. The main line in Ruby Canyon had suddenly dropped beneath the weight of a freight train, and nine loaded boxcars had piled up like jack straws. Then the hole they'd fallen into had filled with muddy water, leaving only their ends and roofs sticking out.

Checking in at the roundhouse I found my engineer was to be "Big Bill" Goddard. Our engine was one of the 500s, built for passenger service in the early days. They were an overgrown replica of the little ten-wheeled passengers used on the narrow gage, saturated with sliding valves and long fireboxes. Once they had been the pride of the road. Now when World War I had business booming, several 500s were dug out of the bone yard and returned to service.

Coupling onto the pile driver and a bridge-and-building outfit we headed into the afternoon sun. They'd given us the whole road. A big hook was coming from Salt Lake to work from the other side of the wreck. Fortunately the locomotive and a few cars had crossed over before the track went out.

It was dusk when we finally halted close to the scene of the accident. The canyon was still red hot from the summer sun. Tall, dried weeds and grass lined both sides of the track. Big Bill and I unloaded to look over the mess, but since the big hook hadn't arrived from Salt Lake, there was nothing to do but mark time. After a while we returned to our engine.

Nervous as usual, Big Bill buzzed around over the 500 until that grew tiresome. Then he got a bigger and better idea. Fishing out his oil torch he ignited the wick in the firebox and with a long tongue of flame flaring out behind him he dropped off the engine. Next thing I knew Big Bill was busy setting fire to the dry weeds and grass. But before he knew what was happening the whole canyon was a raging inferno of crackling, leaping flames.

Since there was nothing but red sandstone cliffs on one side and the Colorado River on the other, the flames did no damage. But while they lasted they offered plenty of excitement. By the time the fire had burned itself out darkness had fallen but still the big hook hadn't arrived. Restless, I climbed down and wandered aimlessly about until suddenly my attention focused on the piled up boxcars where a light had glowed for a second, then disappeared.

The light had seemed to come from the top of an upended boxcar near the center of the pile. I stood where I was and watched. Again it appeared and in an instant vanished.

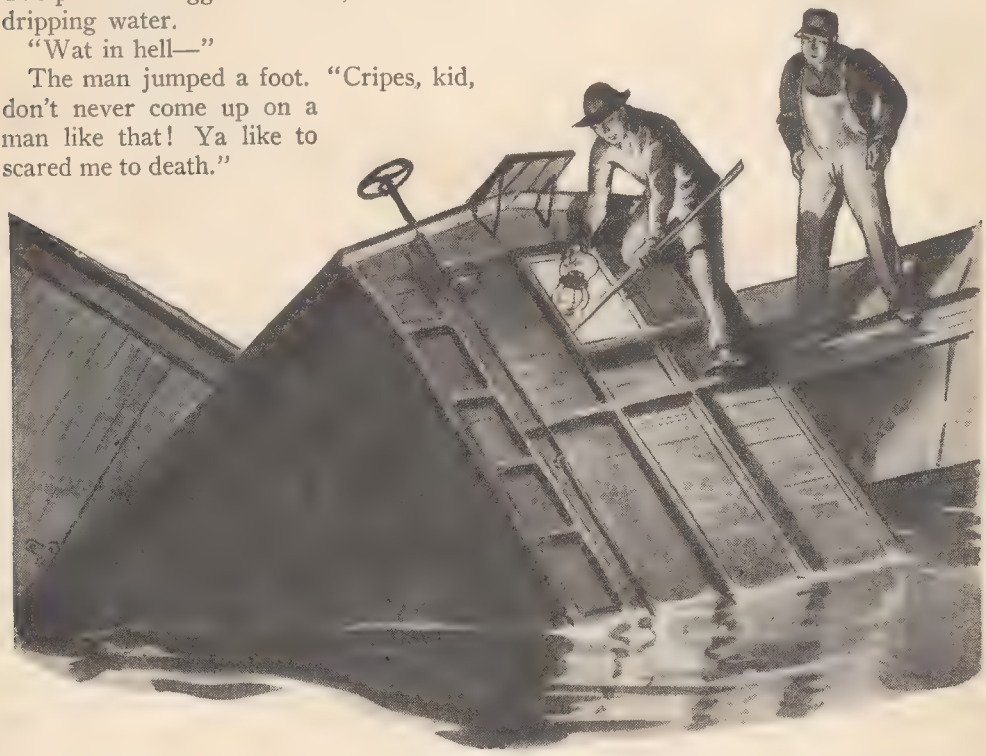
Cautiously, I began moving toward the wreckage, where I'd seen the light and at last I discerned a bulky shadow at the end of the middle car. I approached silently. Whoever was squatting up there was certainly intent on what he was doing. He didn't even hear me until I was almost breathing down the back of his neck.

By that time my eyes had grown accustomed to the darkness and I could see what was taking place. Stretched out over the open end door of this boxcar was

a man holding a short pole in his hands. There was a string tied to the end of the stick, and it dangled inside the car. Inside the wrecked boxcar, also, was hung a lighted lantern. And the fellow was doing some fancy fishing: there were several brand new shoes lined up beside him. As I watched, he tugged up on his pole, raising another shoe through the end door. A safety pin, attached to the end of the cord, served as a fish hook. The pin had snagged the shoe, which was dripping water.

"Wat in hell—"

The man jumped a foot. "Cripes, kid, don't never come up on a man like that! Ya like to scared me to death."



It was my old friend Sandy Boomer, of the bum flagging job. He recognized me at the same time.

"What are ya doin'?" I asked him.

"What size shoes do you wear?" he countered.

I told him as I edged closer so I could look through the door. The car was two-thirds full of water and floating about were dozens of shoes—brand new brogans of a very expensive make. The cases had broken when the car was wrecked and were bobbing about on the surface. Sandy Boomer was fishing them out one by one, by the feeble light of his lantern.

Putting down his pole he inspected the shoes he'd already fished out. He took up one and extended it. "This'n's your size," he announced. "I'll see if I can get you a mate." After some more fishing he finally located a match for it. "Take these an' hide 'em in your seatbox," he told me. "I'll see if I can get you another pair."

In the course of the next thirty minutes he succeeded in getting me a second pair. How many he procured for himself I never knew. But he had a bulging gunny sack when he finally had to quit because the big hook had pulled up on the other side.

I got a kick out of watching the hook drag out trucks, chunks of boxcars and whole boxcars. By dawn all the wreckage had been pulled from the hole and our pile driver could go to work building a temporary bridge across. By noon trains were moving once more.

It was several years later that I read

Floating in the water were brand new brogans of a very expensive make

the climax of Sandy Boomer's career. According to the newspapers, an organized gang of boxcar thieves had been looting merchandise cars of hundreds of thousands of dollars a year. The gang had eluded every trap set for them and were becoming bolder and bolder. But like all good crooks, they finally became reckless. They were caught red handed, looting a car of cigarettes and liquor.

The brakeman was tried and found guilty. "Sandy Boomer, the ringleader of the gang was sentenced to seven years in the penitentiary." I guess he'd had too much luck on the D&RG.

I'VE MENTIONED the poor water we used in our boilers on the Rio Grande Western. Well, so long as the boilers were washed at the end of each wartime trip we had little trouble with foaming. Yet with the heavy traffic, a shortage of power and other rolling stock, our engines hardly had time for servicing between trips. It was nothing to climb from an engine in Green River and find a crew waiting to clean her fire, give her coal and water, and couple her to a waiting train as quickly as possible. And so the daily washing of the boilers became a thing of the past.

My initiation to a dirty boiler came with unexpected abruptness and resulted in one of the toughest trips I've ever made. We'd been called for a bullion special late one evening and given Engine 1207 at Green River. The 1207 was among the best steamers on the division: a tallowpot hadn't to swing the firedoor between scoops, so freely did the old gal boil her water. So I boarded her with a feeling of satisfaction. I'd have an easy trip, and be home in about four hours.

I had a nice fire built up when we coupled on our train. My water glass showed half full of water—slightly better than two gages—and the pops were singing. We got our orders and my hogger whistled off. When he opened the throttle I saw the water in the glass shoot upward, out of sight. Then the exhausts changed from sharp and clear, to soggy and muffled. White wash appeared on the jacket as she boiled over.

"Open your blowoff!" yelled my hogger.

I jerked it wide and a deadened roar filled the cab. I kept my neck screwed so I could watch the glass. The blowoff kept roaring but the exhausts remained soggy; we had crossed the long bridge before they sharpened. Then I saw the water level at the top of the glass. Slowly it lowered, while I held the blowoff wide open. I'm convinced now that nothing but foam filled the boiler. Finally the level was down to half a glass and I shut the blowoff. I reached for my injector, because I realized that if my hogger shut his throttle we wouldn't even have a flutter of water in the mud ring—but he shook his head sharply.

I was afraid to put in a fire. All I could do was sit and sweat, waiting for him to give me the sign to start squirting water into her gizzard. When the water glass showed about a third full, he nodded. I opened the injector. The water started up the stack once more but we gave her a slug of compound, syphoning it through my injector. This sort of quieted down the foaming and I bowed my back to my fire.

Half a dozen times on the climb to Thompson's the boiler foamed over and I blew her down. Yet Bill and I both knew we'd have to get some water on top of the crownsheet before we hit the summit. About a mile below the hogger eased off on his throttle and I widened on my injector. When we got a clear board at Thompson's and rolled through, the light throttle was holding a little moisture over the crownsheet. Our water level had dropped out of sight in the bottom of the glass, still we were able to get a flutter out of the bottom cock. Number 1207 was half way to Cisco, however, before she registered two gages once more.

The rest of the trip was a repetition of the climb to Thompson's. Every time Bill opened the throttle the water boiled out of the stack. By the time we arrived in Grand Junction, I was so fagged I could hardly make it home. Firing locomotives was slowly losing all its fascination for me as I realized that it consisted of much more than posing in the left cab window and waving to good-looking gals along the right-of-way.

Meanwhile a large number of young firemen and brakemen were quitting to enlist in the army or navy, or were being drafted. A manpower shortage was becoming acute. Trip after trip found the caller waiting for me on arrival in Green River or Grand Junction with orders to snatch a bite to eat then climb aboard another engine and double back over the road.

My first pay day there I'd seen my first pay check for over one hundred dollars; the check was for one hundred and twenty-five dollars for the full month. Railroads hadn't gotten around to paying twice a month and we were still working a 10-hour day. You can get some idea of the cost of living back in those days when I tell you I was able to put seventy-five dollars of that first "big" take in the bank, after paying every cent I owed! And I knew some of our engineers and conductors made over two hundred dollars a month—an astronomical sum of money to me then.

ONE of the funniest things I ever saw took place while I was firing the local run. Aside from the passenger turns, this job was about the best on the division, and required plenty of "whiskers" to hold. I was only on it because the regular fireman was laying off.

Our conductor was one of those nervous, energetic individuals who live in a constant hurry. Tall, skinny and solemn, he was nicknamed "Parson" by the gang. When we headed east from Green River that morning, Parson had a boomer braking up front. In the usual hurry, Parson took care to warn the shack—while we were still in Green River —that they had a gob of merchandise to unload from the head car at Cisco.

"When we stop in Thompson's," Parson instructed, "you break the seal on the merchandise car. Inside you'll find fifty sacks of flour and a push car for Cisco. Pile the flour sacks in the doorway so when we stop you can get them unloaded as quick as possible. I don't want any delay."

The boomer grinned widely. "Okay, Cap," the husky, freckled red head agreed. "I'll get the stuff unloaded 'fore you can bat an eye. Just leave it to me."

When we stopped to take water at Thompson's the head shack ambled back and opened up the merchandise car. He poked his head inside, looked around, then ambled back over to the engine.

"Hey," he called to Engineer P. C. Jones. "Ya won't need to stop in Cisco. Just pinch 'em down to about twenty-five miles an hour an' I'll unload that stuff on the fly."

P. C. wasn't a fellow to argue, so he nodded his head. The boomer went back and climbed inside the car and P. C. whistled off. Dropping to Cisco like a bucket down a well, the hogger pinched them down at the yard limit board. Then he rapped a couple on his whistle to let the hind end know we were highballing right through.

Our engine rambled past the depot with Jones hanging out his window, looking back. Suddenly he let out a yell and beckoned me across the deck. "Take a look back there, Kid!" he instructed.

I took a look. All I could see was a big white cloud which completely obscured the whole depot. About that time the air was pulled on us by Parson and as fast as we could P. C. and I unloaded to see what had happened.

Well, that boomer had been ingenious in his unloading, but his methods had been a little crude. While we dropped down from Thompson's, he'd maneuvered the push car around so it sat in the doorway and he'd piled the fifty sacks of flour on it. As we approached Cisco, he lay on his back, his feet against the end of the car. Seeing the depot at Cisco loom up, he gave a mighty shove and the flour laden push car rolled out the door. There was just one thing wrong: it kept on rolling. It rolled against the end of the storeroom, knocked some boards loose,

Here's how I proved to Mary...
THERE'S NOTHING QUITE LIKE ALKA-SELTZER FOR FAST RELIEF FROM HEADACHE
I CAN'T GO, DARLING... THIS HEADACHE'S TOO MUCH FOR ME!
SURE YOU CAN! HERE, SEE HOW FAST ALKA-SELTZER MAKES YOU FEEL BETTER!
HERE WE GO! WE'RE OFF FOR FUN!
RIGHT, JIM! THERE'S NOTHING QUITE LIKE ALKA-SELTZER FOR FAST RELIEF FROM HEADACHE
Alka-Seltzer
AT ALL DRUG STORES
U.S. AND CANADA

W.L. MERRITT

He gave a mighty shove and the flour-laden car rolled out the door

and this jolt scrambled and broke open the fifty sacks of flour. The desert breeze manufactured the big white cloud.

Parson wrung his hands, almost crying as he surveyed the damage. Yet the only satisfaction he got from the boomer was:

"Well, ya told me to hurry. That's exactly what I was adoin'."

On one memorable trip our flues got to leaking so badly we figured we'd have to sign an engine failure and be towed the rest of the way. But those desert heads knew a lot of angles. My engineer that trip halted at Cisco and taking up the tank bucket he unloaded and headed toward the stock yards.

When he returned he carried the bucket filled with sheep dung. The stuff was dry as tinder and ground quite fine from thousands of hooves. He dumped about half of the dung in the deck, filled the bucket with hot water from the squirt hose and stirred the broth thoroughly. Finally he put on my injector and began slowly pouring the mess into the funnel syphon. By the time he started feeding the balance of the dung soup to the boiler our leaking flues had appreciably taken up. Before we'd progressed a dozen miles the flue sheet was dry as a bone.

"Kinda keep that stunt under your hat, Kid," the hogger advised. "The company don't like that way of caulkin' leaky flues."

Another trip we'd made a rattling good run all the way from Green River to Westwater. I filled the tender there while my hogger oiled around. When we got ready to pull out my hogger opened the throttle and we began moving. Suddenly there was a miniature explosion.

This was followed by an ear deafening roar and a wave of searing heat which almost roasted us in the cab. Sweat dripped from every part of me as that torrid heat continued to flood the cab. From the roar and the superheated steam which smashed against the canyon wall and then bounced into the cab, I figured we'd blow out the cylinder packing on my side. My hogger shut off and we rolled to a halt. Both of us climbed down to see what was wrong.

For some reason an inch and a half copper plug had been screwed into the piston valve chamber. This plug had blown out leaving an opening through which most of our steam was escaping. After a quick look my hogger nodded his head wisely. "Won't take a minute to fix that," he decided.

"Ya got another plug?" I asked him.

"No. But I'll soon whittle out one and we'll drive it in," he explained.

Finally we found a chunk of fairly hard wood. My hogger pulled out his jack knife and went to work. When he had the plug turned to the right size, he began tapping it in with the coal pick. With half a dozen lusty blows he had it driven in as far and as tightly as possible.

"Simple as a-b-c," chuckled the eagle-eye as we climbed back into the cab. He whistled in our flag. When we got a sign from the hind end he yanked out the throttle.

Wham! Out blew our wooden plug. Again there was ear-splitting roar, worse this time. The heat was fierce. "Aw, to hell with it!" yelled my hogger.

So we made the rest of the trip handicapped by that constant roar and burning heat. Added to that, the leak spoiled the draft so the engine made barely enough steam to finish the trip. Grand Junction yard limit sure looked good when it finally showed up as the dawn on the next day broke upon us.

WE WERE called to Durham to load some sheep one day. Durham was the big stock yards two miles west of Grand Junction and for years I'd heard about loading sheep with a goat—but had never seen it done. The day was hot; the sheep were contrary. Finally one of the herders yelled, "Bring out Billy. He'll load 'em for us."

Pretty soon a majestic, ancient billy goat was led into the loading pen. Now goats are among the smartest of all animals, sheep among the dumbest. The

herder waved his hand at Billy and commanded, "Put 'em in the car, boy."

Billy blatted invitingly a couple of times. All the sheep turned their dumb eyes in his direction. Very slowly Billy led the way to the chute, looking back to make sure he was followed. With sheep trailing him Billy entered the door leading to the upper deck. Following the wall of the car when he was inside, he turned at each corner, then marched all the way down the far side to turn the corners there. When finally he appeared in the doorway once more—on the opposite side from that which he'd entered—every sheep was inside. Then gracefully Billy leaped out and clattered down the runway, a regular Judas Iscariot of a goat.

I'd been firing on the Rio Grande Western for almost four months when I decided I'd take thirty days off and return to the narrow gage to okay for work and keep my rights as brakeman. I'd be pretty smart! I'd hold down two different jobs on two different divisions. If I was cut off one place, I could still work at another. So I headed for Master Mechanic Fagin's office one morning and on the way I met a strapping boomer fireman I'd became acquainted with. This fellow had been firing on the Second Division, and after our greeting he chuckled telling me about what had happened the day before.

One of the Second Division hoggers had caught a strapping country boy for his fireman. They'd started east on one of the little 1100s with a tonnage train. As the student had spaded coal religiously for several miles a frown of perplexity grew deeper and deeper on his forehead. Then suddenly he had thrown down his scoop and climbed up on his seat.

"Hey," the hogger had yelled to him, "you can't fire a engine that way."

"Listen," he replied, "ever since we left Grand Junction I been throwin' coal into this engine. Ever since we left, she's been a-throwin' that coal out the chimney. I can't see no use in wastin' coal thataway." With this the student had dropped to the deck and unloaded. The last seen of him he was heading back to the farm.

A couple of trips before that, this same hogger had sent another student fireboy back to fill the tender while he oiled around. When he finished he climbed into the cab and looked for his fireboy. That worthy was no where in evidence, so the hogger climbed over the coal pile. The manhole cover was wide open, the tank brim full of water—but no fireboy.

The whole crew hunted high and low for the student. When he wasn't found it was concluded he'd tumbled into the tank and was drowned. The head brakeman finished the trip to Grand Junction and at the roundhouse, the hogger reported his fears that the fireboy had tumbled into the tank and got drowned. A crew hastily drained the tender and a boilermaker went inside with a torch. He searched every corner and nook and still nobody.

A couple of days later the fireboy showed up to collect his wages. When asked what had happened, he said, "After I filled the tank I seen I was only about a mile from Pa's farm. I was kinda lonesome fer Ma an' Pa, so I just climbed off an' went to see 'em."

Yes sir, railroadin' was rough and rugged back in those pre-stoker, pre-automatic block, pre-C.T.C. days of World War I. But it was a great he-man game, as it still is.

BUT to return to my thirty-day layoff. "Where ya going'?" my boomer friend asked as soon as he'd dished out all the gossip.

"I'm gonna take thirty days off," I told him.

"Well, I'm headin' for Fagin's office myself," he said. "I'm goin' to pull the pin. I hear they're needin' men on the Southern Pacific around Los Angeles, Calif."

"Ya gonna quit, huh?" Another idea was taking shape in my mind. There was no use of my lying off. After all, I was getting tired of baling coal into hungry fireboxes.

On a sudden impulse I decided to pull the pin on the job. After all, I still held

rights as brakeman up on the narrow gage, so I told the boomer my decision.

"Sure," he agreed. "A feller can always get another railroad job." Together we repaired to Mr. Fagin's office. I let the boomer go in first, because I wanted to see just how he fared. In less than fifteen minutes he came out grinning.

"Did ya quit?" I asked him.

"Sure. Got a service letter, and an order for my time."

"How'd the M.M. take it?" I asked anxiously.

The boomer shrugged. "He just told me 'Okay,' an' wrote out the dope."

That sounded easy. I went in and a clerk pointed toward Mr. Fagin's office. Entering, I approached the master mechanic who looked at me questioningly.

"I been firin' on the RGW," I announced, "an' I want to quit."

"What's your name?" he asked.

I told him.

He motioned toward a chair and said, "Sit down, Lathrop." When I was seated, he continued, "Now, just why do you want to quit?"

I was stuck. I didn't want to expose the phony dope the boomer who'd passed the doctor for me when I had applied for the job months earlier had put out. And actually I had no real reason for quitting.

"I—I ain't makin' enough money," I announced with determination.

"I see. Did you save anything out of your wages last pay day?"

"Yes sir," I told him truthfully. "I put seventy-five dollars in the bank."

"Well, that's more money than I was able to save out of my wages."

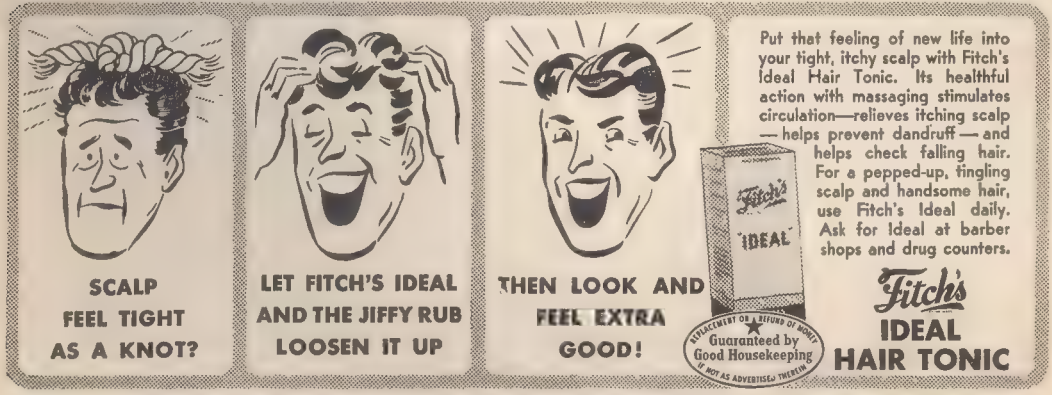
"Yeah, but you got to live like a railroad official," I smirked brightly.

He smiled. Then becoming very serious, he said, "Lathrop, you're the only fireman who's hired out here since the first of the year that's been approved for passenger service. You've got a fine record and I'd like to keep you on the board. If you want to rest up, why not take thirty days off?"

That was laying it right in my lap. I did some quick thinking and decided to place all my cards on the table. I told him how I was on a layoff from a braking job up on the narrow-gage and both my wife and I were getting kinda homesick. All our folks lived up there. . . .

Mr. Fagin was fair. "I see," he nodded, "and I can't say that I blame you. I'm sorry to see you go, but I'll give you the best kind of a service letter." He shook hands with me. "And good luck."

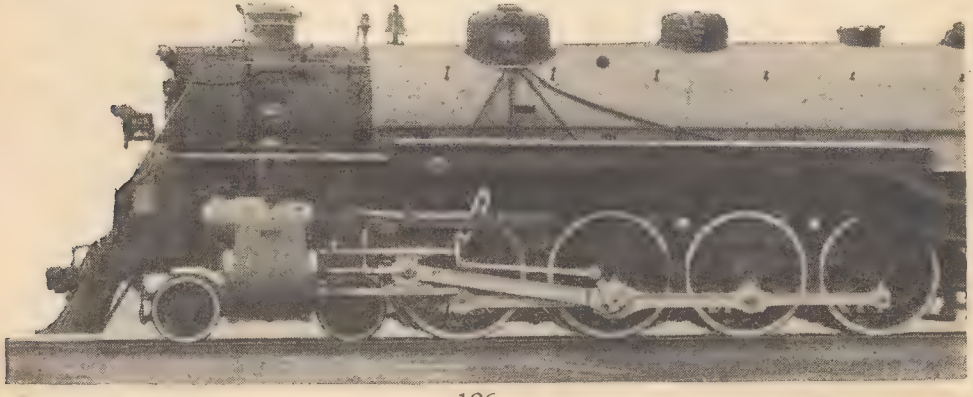
Many times since I've wished I had had the foresight that I've hind-sight. If I'd been able to forget the narrow gage, I'd probably be pulling passenger today. But on the other side of the ledger, I'd probably have never gotten all the colorful stuff I've been able to write about in past issues of *Railroad Magazine*. And maybe I wouldn't be sitting pretty out here on a switching job on the Western Pacific with a half-acre farm to amuse me and a climate which is a delight the whole year around.


SCALP FEEL TIGHT AS A KNOT?
LET FITCH'S IDEAL AND THE JIFFY RUB LOOSEN IT UP
THEN LOOK AND FEEL EXTRA GOOD!
Put that feeling of new life into your tight, itchy scalp with Fitch's Ideal Hair Tonic. Its healthful action with massaging stimulates circulation—relieves itching scalp — helps prevent dandruff — and helps check falling hair. For a pepped-up, tingling scalp and handsome hair, use Fitch's Ideal daily. Ask for Ideal at barber shops and drug counters.
Fitch's
Fitch's IDEAL
Guaranteed by Good Housekeeping
IDEAL HAIR TONIC

Locomotives of the Texas & Pacific

Steam Locomotives

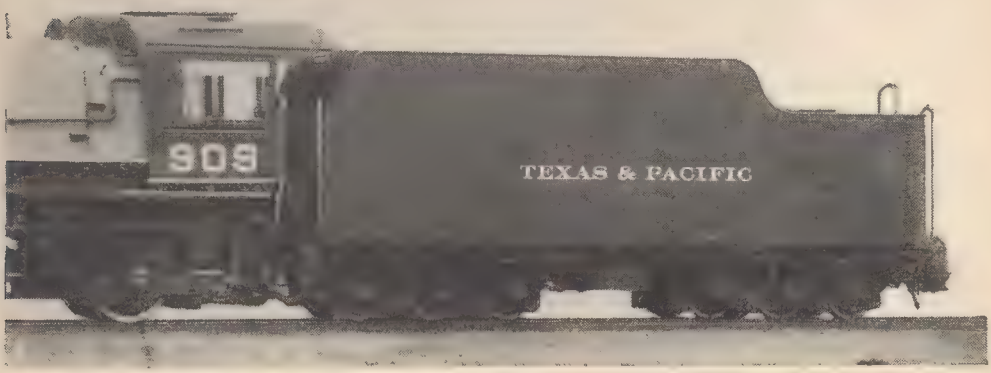
Class	Numbers	Cylinders	Drivers	Pressure	Engine Wt.	Tractive Effort	Builder and Date
			0-6-0 (Switcher) Type				
B-6	317, 320, 321, 323	20 x 26	53¾	200	130,000	34,835	Amer. Loco. Co., 1902
B-7	450, 451, 453-456	21 x 28	57	185	158,700	34,000	Baldwin, 1916
B-8	457-470	21 x 28	51	190	165,000	39,100	Amer. Loco. Co., 1919
B-8A	471-478	21 x 28	51	190	160,000	39,100	Amer. Loco. Co., 1923
			0-8-0 (Switcher) Type				
C-2	480†, 481†	22 x 28	51	250	230,870	69,500	Baldwin, 1925
C-2	482-489	22 x 28	51	250	228,530	54,500	Baldwin, 1925
C-2A	490†, 491†	22 x 28	51	250	232,800	69,500	Baldwin, 1927
C-2A	490-494	22 x 28	51	250	230,500	54,500	Baldwin, 1927
			2-8-0 (Consolidation) Type				
F-1	401, 407, 408, 410	24 x 30	57	180	210,000	46,383	Baldwin, 1912
			2-8-2 (Mikado) Type				
H-2	800-810	26 x 30	63	200	292,000	54,700	Baldwin, 1919
			2-10-2 (Santa Fe) Type				
G-1B	514*-525	28 x 32	63	200	340,000	79,500	Baldwin, 1919
			2-10-4 (Texas) Type				
I-1	600*-609*	29 x 32	63	255	448,000	97,900	Lima, 1925
I-1A	610*-624*	29 x 32	63	255	448,000	97,900	Lima, 1927
I-1B	625*-639*	29 x 32	63	255	452,000	97,900	Lima, 1928
I-1C	640*-654*	29 x 32	63	255	452,000	97,900	Lima, 1928
I-1D	655*-669*	29 x 32	63	255	458,000	97,900	Lima, 1929
			4-6-0 (10-Wheel) Type				
D-9	279, 295, 307, 316, 330, 331, 337	20 x 26	63	200	158,000	28,000	Am. Loco. Co., 1901-03
D-10	370, 372, 375, 376, 380-386, 388-390, 392-394, 396-400	24 x 28	63	185	212,000	40,256	Am. Loco. Co., 1907
D-9½	275-277, 282, 312, 326, 332, 334, 358-360	20 x 26	67	200	160,000	26,373	Am. Loco. Co., 1901-07
D-11	411, 412, 414, 416, 418-420	21 x 28	67	200	196,000	31,330	Baldwin, 1912
			4-6-2 (Pacific) Type				
P-1	701, 702, 705, 706	26 x 28	73	200	276,000	44,200	Baldwin, 1919
P-1	700, 704	26 x 28	73	200	270,000	44,200	Baldwin, 1919
P-1A	708-711, 713	26 x 28	73	200	282,000	44,200	Am. Loco. Co., 1919
P-1A	707, 712	26 x 28	73	200	272,000	44,200	Am. Loco. Co., 1919
P-1B	714*-721*	26 x 28	73	200	296,000	53,900	Am. Loco. Co., 1923
			4-8-2 (Mountain) Type				
M-1	900*-904*	27 x 30	73	210	360,000	63,700	Am. Loco. Co., 1925
M-2	905*-909*	27 x 30	73	225	362,000	67,750	Baldwin, 1928



Baldwin-built eight-wheel switcher has the cap stack characteristic of all recent steam power built for the T&P

United States Railroad Administration light Mikado 810 is last of her series. She carries Baldwin construction number 52144

Below: Oil burning Mountain type 909 bulit in July, 1928, is newest steam passenger locomotive acquired by the Texas & Pacific. Total weight of engine and tender in working order is 654,300 pounds



Diesel Locomotives

Numbers	Horsepower	Drivers	Engine Weight	Tractive Effort	Builder and Date
		B-B (Switcher) Type			
1000-1008	1000	40	244,500	61,100	EMD, 1946
		AIA-AIA (Passenger) Type			
2000-2007	2000	36	310,000	52,300	EMD, 1947

Locomotives of the Abilene & Southern

2-8-2 (Mikado) Type

Number	Cylinders	Drivers	Pressure	Engine Weight	Tractive Effort	Builder and Date
20	20 x 28	56	200	176,000	34,000	Am. Loco. Co., 1926

Locomotives of the Ft. Worth Belt

B-B (Diesel Switcher) Type

Numbers	Horsepower	Drivers	Engine Weight	Tractive Effort	Builder and Date
1	600	40	199,600	50,000	EMD, 1939
2	1000	40	244,500	61,100	EMD, 1946

**With booster.* *†With tender truck booster.*

Photo from C. William Witbeck

One Spot of the Texas Pacific-Missouri Pacific Terminal Railroad of New Orleans is former Texas & Pacific Six-wheel switcher

D-11 Ten-wheelers looked like this when delivered by Baldwin in 1912. Texas & Pacific appeared in script on cab panels

On the Spot

EAGER for self-improvement, more than 50,000 New York Central employes have enrolled in a correspondence course in public relations being given by the company to its workers, the 50,000th being Miss Ann Mullady. These ambitious men and women are being taught how to get along better with other people and how to "sell" rail transportation in the broadest sense. A separate file is kept of each one's progress. When he successfully completes the course, his supervisor is notified and the achievement is entered on his personal record.

The need for such instruction is highlighted by the fact that the proportion of railroad employes who meet and deal with the public is larger than the proportion you find in almost any industry you could name. Relatively few workers in the ordinary manufacturing plant, for instance, come in contact with the plant's customers.

* * *

RECOLLECTIONS of the old boomer days at Mobridge, S.D., when he was working a Milwaukee Road yard goat, are given by Joe P. Emery, 4602 Fairview, Detroit 13, Mich.

"One morning," he writes, "we got orders to take the tool car and a rip-track gang, head into the long passing track and wait for a hotshot, which was coming, with a couple of hotboxes, and a car of whisky enroute to the distillery. This we did. When the train arrived, the gang went to work changing the brasses, right on the main line. As for the whisky car, one man produced an augur and we borrowed a washtub from a section-gang shanty; we bored a hole in the car-bottom, after placing the tub underneath, between the rails.

"Soon the booze began to run. It's the only time I ever saw 'four fingers' in a washtub, as the saying goes. We were just about ready to pull the tub out when the rip-track gang completed its job and gave the hogger a highball. Inasmuch as he was late and on the main stem, the hogger didn't waste any time in taking off. We made a last desperate effort to save the whisky-filled tub. One man almost got run over. Another caught the grabirons on the car and yelled, 'Wash 'im out! Stop that so-and-so!' But it didn't do any good. That tub, whisky and all, went rolling and crashing under the wheels. None of us tasted a drop."

* * *

TEMISCOUATA article by Mike Runey (June '48) is "nearly perfect," according to C. A. Stewart, president of that railway, "except where the author says the motor cars were a failure. Mr. Runey must have gotten this information from the trainmen, as they did not like them, because instead of a brakeman, baggageman, engineer, fireman and conductor, like the steam trains have, there were only two men on the motor trains, a conductor and an engineer. We built those cars ourselves in our shops, but had to take them off because they were too small to handle the increased traffic brought about by the war in 1940. After operating from 1933, they had shown a nice profit every year, and were practically written off through depreciation charged direct to operating expense. I do not call that a failure. They may again be in operation if express and mail traffic show large decreases."

Andrew Merrilees, 22 Whitehall Rd., Toronto 5, Canada, says the Temiscouata is one of the very few Canadian railways which still use 4-4-0 types in passenger service, another being the Canadian Pacific between Norton and Chipman, N.B., and between Renfrew and Eganville, Ont. A lumber pike in Quebec province has

Photo from A. L. Andrews, SP Agent, Santa Cruz, Calif., and Will H. Locke, Farmersville, Calif.

The *Betsy Jane*, first locomotive to enter Santa Cruz in 1875, the year the Santa Cruz-Watsonville Rail Road opened for business. Puzzling conjunction of decorations on boiler and absence of main- and siderods may indicate that photo was made immediately after she had been dead-headed in her introduction to the road

two 4-4-0s hauling Paul Bunyan's toothpicks.

Actually, according to Mr. Merrilees, the Temiscouata is by no means the prospering line Runey depicts. Though a "bridge" road, it carries relatively little "feeder" traffic between the Canadian National at Riviere du Loup, Que., and the CPR at Edmundston, N.B. Almost its entire freight revenue, he says, is derived from wheeling forest products between Cabane and Edmundston for Fraser Companies Ltd., who own the Edmundston pulp mill. It also hauls pulpwood for small private operators.

"Throughout its history," our correspondent goes on, "the Temiscouata has been controlled by English bondholders or their heirs, who have long since regretted their investment. Yet the Canadian Railway Board will not permit abandonment, because the line serves the region it traverses. The management hopes that by some means, political or otherwise, the CNR will take it over. But the CNR, already plagued with profitless branches, has no such intention."

* * *

STEEL CARS. Although May '48 *On the Spot* devoted nearly a page and a half to the origin and early use of steel passenger cars, Everett C. Smith, 304 Broadway, Methuen, Mass., regrets that we did not mention the Erie in this connection.

Mr. Smith quotes from *Encylopedia Americana,* 1945 edition:

"A pioneer as a trunk line, it (the Erie) was also the first railroad to adopt what are now universal methods—among them the running of trains by telegraph, the use of a printed timetable; the running of Sunday trains, emigrant trains and special service for passengers; the use of parlor cars, the establishment of dining rooms along the line, the establishment of special milk trains, and the running of a newspaper special train (this done in 1842).

"It was also the first road to run an excursion train of the modern type with a brass band and a reduced round-trip fare, the first road to use a bell cord to signal from the conductor to the engineer, the first to build up local industries by furnishing to manufacturing companies the use of switching and terminal tracks, a custom now universal, and in more modern days, *the first road to adopt all-steel baggage, express and postal cars,* and is the only railroad in the world operating a triplex or centipede locomotive."

(Editor's Note: It would seem that Encyclopedia Americana *required revision on the last point.)*

RAILFANETTE. John Doyle, an ex-boomer known as "Omaha," living at 1416 State St., New Haven, Conn., who began his rail career in 1913 as a Union Pacific switchman at Omaha, from which he got his nickname, and who is now a flagman on the New Haven, is responsible for some news about the railfanette activities of a pretty girl of 19, Louise Rice.

"For years," states the *New Haven Evening Register,* in an interview with Doyle, "rain or shine, day and night, this girl has signaled to train crews speeding along the tracks only a stone's throw from her back door in Apponaug, R. I. Twice she has spotted danger and stopped the trains. 'I've never seen anyone like her,' said Doyle, 'and I've been a railroad man for 35 years on 29 different roads all over the country.'

"Ever since he started passing her house in 1943 on the run from New Haven to Boston, Doyle says the girl has never failed to signal, no matter how bad the weather. At night she uses a flashlight to give the up-and-down 'all clear' or horizontal 'stop' sign.

" 'Once she gave us the horizontal sign with one hand, and another standard sign with the other,' Doyle said, and demonstrated by holding his nose. 'We stopped the train, and sure enough, there was a bad hotbox on one of the cars. Another time we stopped when she signaled that a brake rigging was down, dragging on the track. And that can be pretty dangerous."

According to the newspaper clipping, for which we thank George F. Brennan of the Metropolitan Life Insurance Co., Louise learned the signals from her uncle, a New Haven crossing tender at East Greenwich, R. I. Her father is an Apponaug mail carrier.

"She never forgets the railroad men," Doyle is quoted as saying. "Do you know what she does every Christmas? She sets up a nice Christmas tree next to the tracks for us, with all the lights and trimmings. And for Easter she sets up a big white bunny and colored eggs—made of cardboard, I guess. She didn't forget St. Patrick's Day, either, but put up a large green flag out by the track."

* * *

FATHER-SON engine crews on the Pennsy's Chicago Terminal Division include J. A. Denman Sr. and Jr., George and Richard Haseman, W. Otto Sr. and Jr., and F. C. Fischer and son, all of these firemen-sons being promoted engineers who have run at some time or other. Our information comes from W. L. Rouse, R. F. D. 1, Box 73-M, Worth, Ill. Mr. Rouse adds: "I hired out as fireman on that division in 1929. During the late war I fired three years on the Dalton local for my father, Thomas Rouse, who has been an engineer since 1901 and is still in service. I have had a regular job running for about three years. Some men firing for me have also fired for my father."

A CLUE FOR YOU

IF it's mystery and adventure you want in your radio listening fare, just tune to these programs.

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Lon Clark as radio's Nick Carter

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Romance mixed with murder

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Eerie and supernatural tales

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Wednesdays, 8:30 p.m., EDT.
High adventure of all kinds

Check local newspaper program listings against possible variations in broadcast schedules

MUTUAL BROADCASTING SYSTEM, INC.

Photo from W. A. Lucas

Take this for a real railfan? He didn't say about that, but we know he's Bob Evans, character model, wearing the garb of a gen-u-wine old-timer in front of the L&NE shops at Pen Argyle, Pa. Gent on the left swore he loves the very ties under the rails

"THE DANISH BOY'S WHISTLE," an old poem subtitled "Oh, Whistle and I'll Come to You," was printed anonymously in *The Continent Magazine* of Oct. 10, 1883, with the following explanatory note: "Nearly every engineer on the New York & New England Railroad has a sweetheart or wife in New Britain, Conn. Every train would whistle a salute to some fair dame, and the din grew so fearfully ear-splitting that the authorities have had it stopped."

Russell Buckhout, c/o *Popular Science,* 353 Fourth Ave., New York City, who sent us a copy of this poem, wants to know the author's name.

It's noon when Thirty-five is due,
  An' she comes on time, like a flash of light,
An' you hear her whistle, "Toot-tee-too!"
  Long 'fore the pilot swings in sight.
Bill Madden's drivin' her today
An' he's callin' his sweetheart, far away—
Gertrude Hurd—lives down by the mill—
You might see her blushin'; she knows it's Bill.
  "Tu-die! Too-ee! Tu-die! Tu!"

Six-five a.m. there's a local comes—
  Makes up at Bristol, runnin' east;
An' the way her whistle sings an' hums
  Is a livin' caution to man an' beast.
Everyone knows who Jack White calls—
Little Lou Woodbury, down by the Falls;
Summer or winter, always the same,
She hears her lover callin' her name—
  "Lou-ie! Lou-ie! Lou-iee!"

At six-fifty-eight you can hear Twenty-one
  Go thunderin' west, an' of all the screams
That ever startled the rising sun,
  Jehu Davis sends into your dreams;
But I don't mind it; it makes me grin—
For just down here, where the creek lets in,
His wife, Jerusha, can hear him call,
Loud as a throat of brass can bawl—
  "Jeee-rooo-shee! Je-hoo!"

But at one-fifty-one old Sixty-four—
  Boston Express runs east, clear through—
Drowns her rattle an' rumble an' roar
  With the softest whistle that ever blew;
An' away on the furthest edge of the town
Sweet Sue Winthrop's eyes of brown
Shine like the starlight, bright an' clear,
When she hears the whistle of Abel Gear—
  "You—ou-ou, Su-u-u-e-e!"

An' long at midnight a freight comes in,
  Leaves Berlin some time—I don't know when—
But it rumbles along with a fearful din
  Till it reaches the Y-switch there, an' then
The clearest notes of the softest bell
That out of a brazen goblet fell
Wake Nellie Minton out of her dreams—
To her like a wedding bell it seems—
  "Nel, Nell, Nell! Nell, Nell, Nell!"

An' somewhere late in the afternoon
  You'll see Thirty-seven go streakin' west;
It's local from Hartford; same old tune
  Now set for the girl that loves him best.
Tom Wilson rides on the right-hand side
Givin' her steam at every stride;
An' he touches the whistle, low an' clear,
For Lulu Gray on the hill to hear—
  "Lu-lu! Loo-Loo!"

So it goes on all day an' all night,
  Till the old folk have voted the thing a bore;
Old maids an' bachelors say it ain't right
  For folks to courtin' with such a roar.
But the engineers their kisses will blow
From a whistle valve to the girls they know,
An' the stokers the name of their sweethearts tell
With the Belle! Nell! Dell! of the swaying bell.

REALISM in art was obtained with the aid of a railroad train when Jean Louis Meissonier, French painter, was at the height of his fame in the 1880s, states the Chesapeake & Ohio magazine, *Tracks*. Meissonier was commissioned to make a painting of cavalrymen in action. "To paint horsemen," he said, "I must first see them." So he took a dozen troopers to his country estate and each morning sent them charging down the park, but before Meissonier could sketch the group they were out of sight.

A friend suggested that he follow them by train. This he did. Then he struck a new obstacle to accuracy. The time was summer, but the scene he was to paint occurred when snow covered the ground. Undaunted, he had thousands of barrels of flour poured over the track and nearby areas. As the men rode, they stirred up swirling white clouds, which completed the illusion that the artist was seeking. The canvas, when finished under the title of *"Les Cuirassiers,"* sold for a small fortune.

FOLKLORE. Down in Lawton, Okla., there lives a man with a white mustache and goatee who claims to be the original train-robbing Jesse James. He denies that the Ford brothers killed him in 1882, saying they shot the wrong man. He says he is 100 years old. At the risk of dodging a slug of lead shortly after this magazine comes out, we admit our disbelief in the Lawton man's claim. It seems to us to be on a par with lurid Sunday newspaper features, published a few years ago, to the effect that Lincoln's assassin, John Wilkes Booth, was not slain in a burning barn in 1865 but escaped to England and lived to a ripe old age. Incidentally, the last close relative of Jesse James was his brother Frank's widow, who died as recently as four years ago.

* * *

NEW YORK CENTRAL'S *Twentieth Century Limited*, which observed her 46th birthday last June 15, is now resplendent in her post-war "new look" equipment. The *Century*—actually two

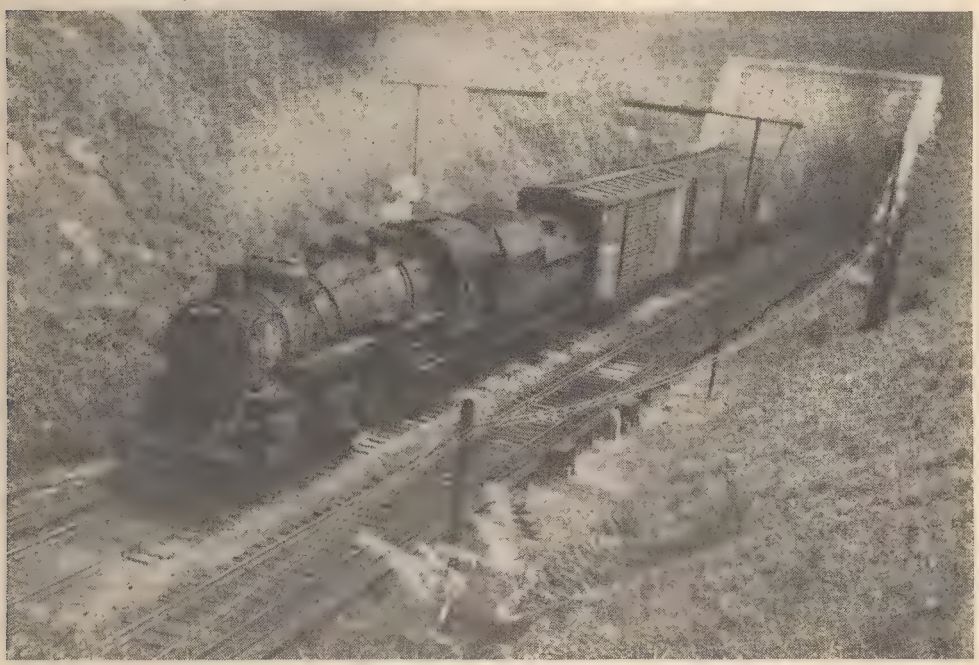

Photo from Alfred F. Tyrrill, 9 Iris Lane, New Hyde Park, N. Y.

Through tunneled Baltimore B&O Consolidation 4401 clatters with a local freight, working a clear exhaust as she bursts from the smokehole

English crowds view the "Atomic" train. First section carries charts, photographs and experimental equipment, including a radium clock kept in motion by atomic energy. The second section is devoted to practical applications in which the public, guided by British Atomic Scientists Association members, is allowed to take part.

Courtesy Associated British & Irish Railways, Inc.

trains, with one operating each way on the 961-mile run between the nation's two largest cities—has just been re-outfitted with new, specially-built, luxury cars built by Pullman Standard Car Manufacturing Co., builders of the present and previous *Centuries*. Gone are the streamlined cars which had been in daily service since June 15, 1938.

The cost of the two *Centuries* is about $2,000,000. Altogether, the Central is spending $86,000,000 on its post-war, new, passenger-equipment program, which it claims is the largest sum being spent by any railroad on such a program. The huge sum covers $65,000,000 for new passenger cars and $21,000,000 for new passenger locomotives received or ordered since the start of 1945.

* * *

FIRST Diesel-power railway wreck car ever built has just been put into service by the Norfolk & Western at Roanoke, Va. This "big hook" is capable of lifting a 250-ton load and makes possible the speedier and more efficient handling of derailed equipment and the erection of bridges and the handling of other heavy material. It is powered by two 124-hp. Diesel engines.

YOUNG VALVE GEAR. Correcting an item which appeared in our *Light of the Lantern* (May '48), Walter Smith, Western manager of The Pilliod Co., manufacturers of locomotive valve gear, writes from his office at 332 S. Michigan Ave., Chicago:

"The Young valve gear is shown correctly in a cut on page 69, but the description given does not apply to it. What is described pertains exclusively to the Young rotary valve, which was not in the category of valve gear, although O. W. Young developed both devices.

"The first application of Young rotary valves was made to a 4-4-0 type locomotive about 1902, and next to a 4-4-2 about 1904. On these the rotary valves were actuated by the Stephenson valve gear. Then in 1903 ten 4-4-2 type engines were

built at Schenectady for the North Western RR., equipped with Young rotary valves actuated by the Walschaert valve gear. When these locomotives were superheated about 3 or 4 years afterward, the rotary-valve cylinders were removed, and replaced by piston-valve members. In this connection, it should be pointed out that the rotary valves could not be lubricated satisfactorily with superheated steam.

"When Mr. Young realized that the rotary valves had no commercial possibilities, he accepted a position in Schenectady's engineering department in charge of valve-gear designs. While there, he developed the Young valve gear, which the Pyle National Co. took over in 1915. The following year I went with that company as Mr. Young's assistant. The first application of the Young valve gear was made in the latter part of 1915 at Battle Creek, Mich., to a Grand Trunk 4-6-2. During the next 12 years about 300 engines were equipped with this gear, mostly on the Canadian National, the Union Pacific and the Northwestern.

"The Young valve gear is really the Walschaert gear modified to drive from the crossheads instead of from eccentric cranks keyed to the main crank pins. Both valve gears derive their lap and lead movement from combination levers, and travel from oscillating links. The lap and lead movement is constant, but the travel derived from the links is variable, for the reason that the links are slotted and the link blocks and radius bars can be shifted in the slots, by means of reverse arms.

"Since the Young gear motion is derived entirely from the reciprocating movement of the pistons, the valve travel-producing members must be direct on one side and indirect on the other. Whereas in the case of the Walschaert gear these members are the same on both sides of the locomotive—either direct or indirect in the forward motion and *vice versa* for the back motion, depending upon the arrangement of the reverse arms and the setting of the eccentric cranks.

"Bearing in mind that the Young gear is duplex-piston actuated, it follows that valve movement equal to its own lap and lead must be derived on its own side, and travel on the opposite side. The desired effect is produced thus: Valve travel in addition to lap and lead is brought about through the oscillation of the link which causes the radius bar, when either above or below its central position, to oscillate the rock shafts and is effective on the valve on the side of the locomotive opposite to the link that imparts motion. In view of the fact that the front end of the radius bar acts on the lap and lead lever between its two extreme connections, unusually long travel is imparted to the valve without excessive angularity to the swing of the link.

"Finally, it should be pointed out that the Young valve gear is passing out of the picture. The Pilliod Co. took it over in 1928, but no applications have been made since then, and many of the existing gears have been removed, particularly on passenger locomotives. Although engines

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Tests by doctors show that Johnson's BACK PLASTER helps nearly 9 out of 10 sufferers. It's made by Johnson & Johnson—known for fine surgical products for 61 years. At all drug stores.

Photo from Keystone Pictures, Inc.

Just one of the indignities a locomotive may have to suffer when playing the star-role in a "work" exhibition. Scene is Hamburg, Germany, midway between the station and the fairground at Planten und Blomen

equipped with the Young gear can handle heavy trains effectively, the gears do not stand up in present-day high-speed service. Maintenance costs are high and failures frequent. However, to O. W. Young must be given the credit of pioneering long valve travel, which has now been pretty generally accepted."

* * *

WORLD SERIES. In October, 1924, when the Giants and Senators were slugging it out for the season's baseball supremacy, JR tower, a remote two-story block station some 40 miles south of Erie, Pa., on the Pennsy's Chautauqua branch, was keeping a host of employes in various departments posted through a play-by-play report on the series, recalls Harry Ridgway, Hydetown, Pa.

The story of that event goes back to the spring of '24, when Harry bought a small, second-hand, 3-tube radio set, which had to be used with head phones. As he was working second trick at JR, he installed this set in the tower—without getting permission from the local brass hats, because he did not want to risk being turned down. Later, it proved helpful in informing the dispatcher on the location of approaching northbound trains.

"During that season," he writes, "I kept the baseball fans along the iron pike posted daily on the progress of big-league games, as they were broadcast by KDKA every 15 minutes. Then the day's final scores were hung on a hook for the third-trick man to wire out to the graveyard shift. By mid-season this had become one of my unwritten duties.

"Then came the October world series. Frank McCurdy, first-trick man (now agent-operator at Lake View, N.Y.) and I decided to wire out the returns if 'K,' the division relay office, would give us No. 23 message wire. This would eliminate the possibility of our having the wire taken away every few minutes, besides giving us the green light insofar as the wire chief was concerned. Since all five men in 'K' were baseball fans, this wire was turned over to us.

"McCurdy and I sat back to back, I keeping my fingers on the very eccentric radio set most of the time to keep it tuned. Those of you who recall the primitive types of radio sets used 14 years ago will understand why. McCurdy held his fingers on the telegraph key, when he wasn't marking up box scores. On each play I turned my head slightly and relayed it to him. In a second or two he had it snapped out over the division, or as far as the wire reached.

"At times when McCurdy had to get busy on railroad work for a few minutes, I was forced to take over both jobs. I felt like the one-armed paper-hanger. The

radio was so located that I lacked about 18 inches of getting my fingers on No. 23 key and still keep the head phones on. For this emergency the bug was hooked up. I could just reach it with my finger tips.

"Just how far No. 23 wire was out to, we never knew, but I understood it covered from Buffalo to Pittsburgh and from Erie to Renovo. It would only be a guess to say how many men these reports were reaching. I'd say thousands. A section foreman out in the sticks, for instance, would keep his head stuck in a telephone booth, turning and yelling each play to his workers as they continued to tamp ties. Somehow he managed to find work near a booth during the hours between 2 and 4 p.m.

"Considering the infancy of radio at that time, my tiny set behaved well during the entire series. If your memory is good, you may recall that 1924 was the last season in which world series returns were relayed through a broadcasting station. Beginning with '25 they came direct from the field. At times, when reception was good and I could read the wire in KDKA, McCurdy and I had returns out on No. 23 *before* it was broadcast over the air. Of course, this was for only part of an inning at a time. Nevertheless, we were 'scooping' the not-too-many radio listeners by as much as 3 to 5 seconds.

"But the unique scoop was pulled off at Oil City, Pa. Almost directly in back of a newspaper office was located UD tower, an assistant train director's job. A crowd was on the street in front of this office as a play-by-play account was being megaphoned out the window. The positions of the man behind the megaphone and the UD operator, with his window open, were such that neither could see the other, but both could be seen by the crowd. Whether the newspaperman was getting his information by radio or wire, I never knew. As he took the returns from No. 23 wire, the chap at UD immediately signaled them down to the men in the street. Because human nature likes to get a 'beat,' some of the listeners couldn't resist the impulse to call the plays up to the megaphone man even before they were on the air, and was his face red! I did not know of this till five years later, when the op who at the time was on first trick at UD laughingly told me what had happened.

"In each of the three following years, we sent out world series returns off the same radio from tower JR; but in January, 1928, JR fell a victim to the Pennsy's retrenchment program, and was never reopened. Today nothing is there but a weed-covered wall as a marker."

* * *

Photo from Bruce White, Augusta, Mich.

Brake wheel and wood sheathed sides announce the age of Pere Marquette boxcar 85250, waiting for NYC to pick her up on Knappen Milling Co.'s Augusta siding

WASHOUT in January '34 which sank part of the Boston & Maine track near Hancock, N.H., shortened the Railway Post Office run between Keene, N.H., and Boston, Mass., via Nashua, N.H. so that its western terminus was made Peterborough N.H., records Charles F. Durgin, Derry, N.H. The B&M discontinued service beyond Elmwood and routed trains to Peterborough. Two years later heavy rain causing soft roadbeds resulted in the run being curtailed at the eastern end,

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Nashua Union Station being made the terminus. These cuts made a better run for the clerks involved, giving them two round trips instead of one, with more time at home. The new setup was too good to last. It did, in fact, last but two months.

Up till the morning of St. Patrick's Day, 1936, the Nashua and Peterborough R.P.O. had been performing as usual, except for late running due to delayed connections, but on this date there came a change which ended train service over the route. The Contocook River reached flood level under the railroad trestle east of Peterborough depot. As the trestle was unsafe for traffic, the train was shunted back to the yard. This spelled the end of the N-P as a Railway Post Office.

Even after the water subsided, passenger service was not restored. The rest of that week, closed mails were carried by truck in charge of Clerk Leo Marrion, who worked under difficulty with chilly air and rain falling, and very little protection. The following Monday the B&M began operating a bus between Peterborough and Nashua for passengers and mail. For several days the bus detoured around Greenfield and South Lyndeboro, because of unsafe highways.

Mr. Durgin continues: "Marrion and I decided that as the railroad company was getting paid for 15 feet of working space, we would attempt to distribute mail aboard the bus enroute, similar to our work on R.P.O. cars. A day or so later the bus was equipped with hooks, upon which we hung pouches and sacks for paper and parcel post. The bus rolled to West Peterborough to meet a truck with mail for the towns beyond. Mail was transferred by hand over the rest of the route to Keene until road repairs could be made to allow through service by truck.

"Because flood conditions interfered with the routing of mail to certain towns, the accumulation of undelivered mail filled an abnormal storage space for which the bus had not been built. Besides crowding the storage area at the rear, it had to be piled on seats, often roof-high.

"Owing to this congestion, I was injured in my last week on duty. Three days after the injury, I made my final trip in railway mail service. That was April 10, 1936, nearly 39 years after I had started out in the service. This bus, so far as I can ascertain, was the first highway R.P.O. in America. If not, I hope some reader will give me the facts about an earlier one.

* * *

LAST STOP is the Reader's Choice coupon *(page 143)*, which guides your editorial crew in selecting material for future issues of *Railroad Magazine*.

Some readers use the coupon. Others prefer not to clip the magazine; they send home-made coupons, postcards or letters. Regardless of how votes are written, all count the same. Results of balloting on the August issue show as follows:

1. Locomotive Oddities
2. Banana Line, *Leonard*
3. Race Track, *Lathrop*
4. Light of the Lantern
5. Siskiyou Shortline, *Wagner*
6. Victorville, *Kelso*
7. Brakeman Comes Back, *Dellinger*
8. Electric Lines
9. Locomotives of the Chicago & North Western.
10. On the Spot

Most popular photos: pages 59, 30

Take Siding

Answer to problem on page 9

Engineer Smith and Conductor Phillips were right. An A. of A. R. ruling states that instructions to take siding in an order apply only to the meet at that station; and if the meet is superseded, the instructions to take siding are no longer valid. Because of just such instances as this—where confusion has arisen because of the provisions of an order such as No. 21—this form of order has been abandoned on most roads in this country.

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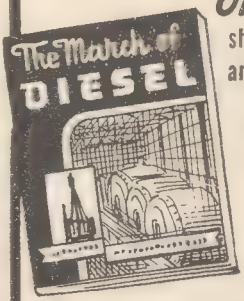

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Because of time needed to edit, print and distribute this magazine, all material should reach the Editor eight weeks before publication date. Redball handling is given to items we get the first week of each month, if accompanied by latest Reader's Choice coupon (clipped from page 145 or home-made).

Due to scarcity of space, we prefer that no reader be listed here oftener than once in three months.

The term *tts*, refers to public timetables, unless preceded by *emp.*, when it means employes' (operating) timetables.

(R) indicates desire to buy, swap or sell back issues of *Railroad Magazine* or its predecessors, *Railroad Man's* or *Railroad Stories. (Specify condition of each copy.)*

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Switch List

RICHARD J. ANDERSON, 4607 Marmora Ave., Chicago 30, Ill., will sell several hundred size 116 steam, elec. negs.; send postage if wanted on approval.

BRIAN ALLEY, 20 Sherwin St., Waterville, Me., wants any size pix of abdn. n.g. New Eng. rrs., pref. SR&RL.

(R) HORACE E. ANDREWS, 37 High St., Clinton, Conn., will sell 200 *Railroad Magazines* '30 to date; 80 *Trains;* 95 *Model Railroader;* 60 *Model Craftsman;* 15 *Trains* albums, 800 diff. pix mostly p. c., some smaller, some 5x7s; assorted books, clippings, mags., etc. incl. *High Iron,* old loco catalogs; lot for the first $100. Write first.

RUSSELL BAUM, 800 N. Fourth St., Sunbury, Pa., has compl. list from New England, Pa. vicinity, many n. g. List for stamp.

(R*) ORTH BELL, Radio Station KEH, Wichita, Kan., will pay best prices for elec. pix or will swap for *Railroad Magazine, Trains*, others.

O. H. BORSUM, *you did not give your address.*

DANIEL BRANNAN, 516 Church St., Gallitzin, Pa., has various steam, Diesel, elec. locos, PRR pix, approx. 4x6, smaller. Wants good pix round-end obs. cars on famous *name* trs., esp. Santa Fe, Seaboard, Burlington.

(R) J. J. BROPHY, 74 Andrew St., Kingston, N. Y., will sell *Railroad Magazines* '46, exc. Oct., Nov.; Jan.-Nov. '47, excell. cond., reasonable.

W. R. BRUMBAUGH, 858 Huntington Ave., Boston 15, Mass., offers emp. tts. NH '19 to '48, $2 to 75c ea.; recent MEC, B&M, B&A, 50-75c; NH eng. assignment booklets, 1919-22, $1 ea.; *Off. Guide* '36, $4; *Hist. Bald. Loco.*, 1920 ed., $4. All good cond., list for stamped env. Will pay good price for *Bald. Locos*, Jan. '24; Jan., Oct. '26; July '27, Jan., Apr. '28, Jan. '31; R&LHS 37, 49, 61 bulletins.

(R) JOE H. BRUNER, East Marion, N. C., will sell *Railroad Magazines* Dec. '36; Apr., Oct.-Dec. '37; '38 exc. June, July; July-Nov. '40; Dec. '41; Feb., Apr., Sept. '42; Nov. '47. Make offer.

(*) DAVE CRAWFORD, 35 Colfax Rd., Havertown, Pa., has pix Suburban Phila. trolleys, some PTC, others. For info. send stamped env.

STEPHEN P. DAVIDSON, 815 N. Third Ave., Knoxville, Tenn., offers pix all Knoxville elec. lines, many other Tenn. elecs.; few tokens, transfs., passes from Knoxville; large collec. *Louisville Railways*, other Ky. lines. Will trade for Detroit, Twin Cities, Milw., Denver, old Ohio interurban pix or sell. Pix available size 616, p. c., few negs. 616. List, sample 10c.

(R) NORMAN L. DOUGLAS, Box 3352, Brentwood, Calif., wants *Railroad Magazines*, Jan., June-Aug. '34; Apr., June, Oct. '35; Feb. '36; Oct. '46; all prior '34. Mags. must have covers, unclipped.

(R) CHARLES F. DURGIN, Derry, N. H., will sell *Railroad Magazines* '42, '44, '45, '46, '47, exc. Jan. 41, June '43; 5 odd older 87 sold in one lot only. Write.

(R) FREDERIK S. EATON, Forest Rd., Northford, Conn., will sell to highest bid received by Sept. 15, first 42 vols. *Railroad Magazines*, 504 issues, Nov. '29 to May '47, unclipped, few earliest lack covers.

ROBT. ELLISON, 418 5th St., Petaluma, Calif., offers emp. tts. at reduced prices, also tts., p. c., pamphlets. List for stamp.

(R) JOHN A. ERNEST, 64 Wayne Terr., Staten Island 10, N. Y., wants to buy or trade for *Railroad Magazine*, rr. stamps. Send list.

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JAMES L. GAYNER, 327 Magnolia Ave., Piedmont 10, Calif., wants eng. negs. UP, AT&SF, SP.

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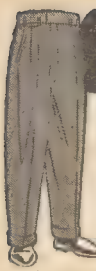

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(R) DICK HOWELL, 500 S. Grant, Crawfordsville, Ind., wants any issue *Railroad Magazine*, other rr. mags.; will trade size 616 pix, tr. ords., other railroadiana. Write for list.

(*) CHAS. HUFFER, Assumption, Ill., will sell 15 Texas Elec., size 116 pix, ea. one diff., for $1 p.p.

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(R) R. N. KENARY, 15 Waters St., Millbury, Mass., wants *Railroad Magazine* June '36; Jan., Feb. '39; May-Aug. '40; Jan. '46, issues with PRR, B&O loco roster. Will pay 20c ea. plus post.

(R) WM. C. KING, 4034½ 45th St., San Diego 5, Calif., wants *Railroad Magazine*, Aug., Sept. '30; Jan., May, June, Aug., Oct., Dec. '31; Mar.-May '32; Mar., Apr. '33; Jan., Mar., Sept. '37; May '38. Write first, stating price, cond.

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(R) CHANDLER WALKER, 1 Assabet Ave., Northboro, Mass., will sell *Railroad Magazine*, good cond. Jan. '34-Dec. '47, exc. Feb. '35; Oct., Nov. '42; Feb., Dec. '45; Jan. '46; Feb. '47, $2.50 per yr., all for $30.

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(*) JOHN WEIGHTMAN, 1316 Que St., Sacramento, Calif., has pix, size 124 Northern Elec. No. 21 at Swanston, SN pass. No. 130 in smash-up; also four PG&E pix, 15c ea., all pix about 30 yrs. old; one is a rope brake car.

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KENNETH R. WULFF, R. R. 2, Liberty Center, O., wants to buy size 116 neg., Wabash, 2411, 2404, 2423, 2438, 2462, 2-8-2s, any 4-4-2 series.

Model Trading Post

FRANK W. BEYER, 1958 Lithgon St., Pittsburgh 14, Pa., wants 42 Lionel motor for std. gage eng.; 249 and 261 Lionel frame. Will pay cash or trade.

WM. F. BOLTON, Govt. Transport Officer, Kumasi, Gold Coast, West Africa, wishes to hear from those interested in O gage model pikes; wants some eqpmt. Will exch. Bitish and African items, any kind, for good O gage kits or second-hand eqpmt.

J. J. BROPHY, 74 Andrew St., Kingston, N. Y., will buy Lionel K transformer.

WM. CLIFFORD, Box 909, Buffalo 5, N. Y., wants O gage tinplate engs., cars, any cond.

ALEX CRUZ, General Delivery, Kingman, Ariz., will swap '48,. 6 tube, Ivory, Mantola radio, perf. cond., $42.50, Walwe, for your offer in HO eqpmt.

ESMOND A. GROSZ, 924 Jahncke Ave., Covington, La., will sell 3 compl. Lionel trs., frt., pass., switcher, approx. 100 ft. trk. with switches, lights, signals, lift bridge, coal loader, crane, stas.; all excell. cond., table mounted, easily moved. $125.

LEON A. KREGER, 2006 Jarvis Ave., Chicago 45, Ill., will sell or swap excell. Lionel 00 3-rail sup. det. Hudson, cars, trk.; also 2-rail sup. det. Hudson, frt. cars. Wants Lionel O gage locos 224, 225, 227, 228, 701, 708, 763, other scale types; also 700, 2900 series frt. cars. List for stamp.

JOHN LAWSON, 4107 Verdugo View Dr., Los Angeles 41, Calif., has NYC 4-6-4 assembled from No. A erector set, without motor or tender, ½ in. scale, 2½ in. gage, new '32, good cond., swap for paint. Will sell to highest bid.

RAY LEWIS, 3417 Erie Ave., Cincinnati, O., will buy AF plastic frt., pass. cars, HO gage with AF couplers; also AF r.c. trk. switches HO gage.

EDWARD N. MIDDLETON, 2856 Jackson St., San Francisco 15, Calif., will trade New Orleans jazz recordings for HO gage scale eqpmt. List on request.

WARREN D. STOWMAN, 7450 Forrest Ave., East Germantown, Philadelphia 38, Pa., has 4-4-0 type Camelback, outside 3rd rail feed, ¼ in. scale, sold for $80 when built in '38, in running condition but banged up, $65 plus insured post. Will also sell ¼ in. scale items; answers inquiries for self-add. stamped env.; list for 10c.

W. JAMES SWENSON, 311 Church St., Hackettstown, N. J., has Lionel 1666, 2-6-2 locos, tender, 2 cars, caboose, 38 pieces 022 trk. with 2 elec. switches to sell, or trade for 35 mm. camera and enlarger. Goes to highest bid over $65.

RONALD TENNEY, J., 99-21 208 St., Queens Village, N. Y., will sell HO 3 flatcars, 3 reefers, 3 boxcars, 2 cabooses, 3 pass. cars, crane, tank, kitchen, gondola, hopper, cattle car. First offer $25 takes all. Will sell individually.

STEPHEN W. YOUNG, 6720 Chestnut St., Cincinnati 27, O., wants scale models of British and European RR models in O gage of smaller.

Flagstops

NEW BULLETIN published by the ARR, No 14 in the Information Series entitled *Colleges and Universities* is a handy booklet for any ambitious railroader to keep on the shelf right at hand. Listed alphabetically are all colleges and universities offering day and night courses in transportation, engineering and traffic management, with the educational requirements whicr there schools demand. Some can be taken only in connection with a college degree; others are open to all properly qualified on a single course basis. For copies write Association of American Railroads, Transportation Building, Washington 6, D. C.

* * *

MASTER GUIDE to the shortline carriers of U.S., Canada and Alaska has been published in its 1948 edition by the editors of *The Crown Sheet*. To readers who have been wondering what's happened to this organ—silent since last August—the editors announce the start of a new informal publication called *Short-Line Newsletter*. Subscribe from William S. Young, 23 Parker

Ave., Cranford, N. J.; 25 issues for $1. Copies of shortline guide are 10c each.

* * *

FANTRIPS. Denver's Rocky Mountain Railroad Club will run an excursion over the narrow-gage Denver & Rio Grande Western's Marshall Pass, Black Canon and Crested Butte lines on *Sept. 18 and 19th.* Train, including the Silver Vista (glass top observation car) and dinette car will leave Salida at 9 a.m. *Sept. 18th.* Overnight stop at Gunnison. Hotel reservations included in fare $12. Send reservations to J. E. Haley, 4116 Decatur St., Denver 11, Colo.

California-Nevada Railroad Historical Society announces two fantrips for this fall: *September 19th,* Southern Pacific branchline run to Valley Springs and Kentucky House leaving San Francisco and Oakland via historic Niles and Altamont canyons now freight-only. Those interested in Lodi Grape festival will be taken via Lodi, thence via branch to Kentucky House; *October 24th,* rerun of popular Napa Valley branch trip to Calistoga, including visit to historic Los Hermanos Winery (Beringer Bros.) at St. Helena. For all details write A. L. Lloyd, Jr., Excursion Director, 849 University Ave., Berkeley 2, Calif.

Pacific Coast Chapter of R&LHS announces—with some apologies—a weekend on the Southen Pacific Narrow-Gage with a good part of the distance to be covered via buses, to cut down costs and time. Group leaves Bay area on Friday night October 8th to be gone 9th and 10th. Traveling via bus through Carson Pass and along old route of Carson & Colorado to Laws, northern terminal of Espee's narrow-gage. Included are runs from Laws to Keeler via n.g. rail, look around Reno and Carson City and Virginia & Truckee. Tentative rates: $22 tax included, plus $3 room deposit. For all information write Francis Guido, P. O. Box 668, San Mateo, Calif.

Something new in a complete analysis of fantrip-dom is a mimeographed booklet compiled by E. L. Plant and J. A. Wood, 3226 E. 26th Ave., Vancouver, B. C., Canada. A breakdown of all possible trips out of Vancouver, with train times, fares for weekdays and Sundays, points of interest along the way, resumé of road history, motive power and rolling stock. Brief can be had for 50c a copy.

Joint Railfan Trip Committee, 296 Henderson St., Jersey City, N. J., announces the following fall trips: *Sept. 12th,* all-day Brooklyn trolley trip via PCC car starting Park Row, Manhattan (Brooklyn Bridge) at 9:30 a.m. daylight time with lunch stop, display of historic equipment; fare $1.75 before Sept. 6, 75c extra later; *Sept. 19th,* Pennsy Flemington branch first-time run, starting at Trenton 11:30 a.m. standard time; roundtrip to Flemington, $2.50 before Sept. 13, 75c extra later; *Oct. 3rd,* something new in Grand Central tours, gondola ride round both loops, up Park Ave. and down. Photo stop at MO. NYC's busiest junction; inspection of A, B, F and MO towers, NH streamliner especially placed on pit for examination inside and under, terminal equipment, Mott Haven's underground substation and operating facilities via special train. Releases required; maximum 50 passengers; 9:30 a.m. to 1:45 p.m. Fare before Sept. 25, $8.50 (about 80c a mile); $1.50 extra for latecomers.

Third annual trip over the New Haven's "Canal Line" has been scheduled by the Connecticut Valley Chapter, National Railway Historical Society, for Sunday, *Sept. 12th.* Tickets are $3.75 for adults and must be secured from Chairman Edward G. Kelly, 411 Shelton Ave., New Haven, or from the model supply store of Parmele & Sturges. Train leaves New Haven at 9:20 a.m. for Holyoke, Mass., where again as last year Mayor Toepfert will provide a sightseeing tour; returns at 3:25 p.m.

B&M fall foliage trip through Berkshires and Hoosac Tunnel to Mechanicville, N. Y. and D&H ENGINEHOUSE. Sunday, *Sept. 26* out of No. Sta., Boston at about 9:10 a.m., EST. Fare $5.00; tickets from Cyrus Hosmer, Jr., Trip Chairman, The Railroad Enthusiasts, Inc., 34 Chester Rd., Belmont 78, Mass.

* * *

RAILFANS in the Toronto area may be interested in Upper Canada Railway Society, Box 122, Terminal A, Toronto, Canada, which holds its first meeting of the new season on September 17th, continuing to get together the third Friday of each month in Room 486, Union Terminal, Toronto. Society also publishes bulletins at regular intervals; some back copies are still on sale featuring Canadian roads. Write Stuart I. Westland, Editor, 4 Bingham Ave., Toronto, for all information.

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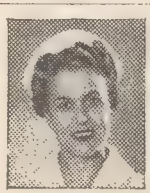

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